STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Illinois Bell Telephone Company	:	
	:	
Filing to increase Unbundled Loop and Nonrecurring Rates	:	**ICC Docket No. 02-0864**
	:	

INITIAL BRIEF OF THE STAFF OF THE ILLINOIS COMMERCE COMMISSION

PROPRIETARY VERSION
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The Staff of the Illinois Commerce Commission ("Staff"), by and through its counsel, pursuant to Section 200.800 of the Commission's Rules of Practice (83 Ill. Adm. Code 200.800), respectfully submits its Initial Brief in the above-captioned matter.

I. Introduction and Summary of Position

Docket 02-0864 was initiated by the Illinois Commerce Commission ("Commission" or "ICC") in December, 2002, to suspend and investigate the rates filed by SBC Illinois (the "Company" or "SBCI") to increase Unbundled Loop and Nonrecurring Rates charged to competitive local exchange carriers ("CLECs"). The case was abated by the Illinois General Assembly in May, 2003 and the ICC ordered to use specific inputs to the loop cost studies and approve new rates in 30 days. SBCI then re-filed tariffs utilizing new costs studies which were approved by the Commission. CLECs appealed the new rates, and their appeal was granted. However, the Federal Court then ordered the Commission to re-initiate Docket 02-0864 and approve new rates in an expedited manner. The Commission followed that directive, re-initiated the docket and set a 6-month deadline for completion of the proceeding and setting new

Unbundled Loop and Nonrecurring Rates. The Commission set June 16, 2004, as the date the new rates should be approved.

A. Introduction

In this proceeding, the Staff has carefully analyzed the Illinois Bell Telephone Company's (hereafter referred to as "SBC", "SBCI" or "the company") proposed unbundled network element loop (UNE-L) rates and nonrecurring charges, along with accompanying cost studies, testimony, and associated information. Based upon its review, the Staff recommends that the Commission not adopt SBC's proposal as files, consistent with Staff's recommendations as more fully set forth below. Staff has proposed both recurring rates and non-recurring charges, and urges the Commission to adopt these rates and charges consistent with its recommendations set forth below.

B. Procedural History

This proceeding was originally initiated on December 30, 2002, when the Illinois Commerce Commission (the "Commission") suspended the revised tariffs filed by Illinois Bell Telephone Company d/b/a SBC Illinois ("SBC") on December 24, 2002.[1] As a result of the passage of Public Act 93-5 (P.A. 93-5, Section 5, *enrolled as* 220 ILCS

[1] The specific revised tariffs filed by SBC were Ill. C. C. No. 20, Part 19, Section 2, 5th Revised Sheet No. 1.1, 4th Revised Sheet No. 23, 3rd Revised Sheet No. 29.1, 4th Revised Sheet No. 31, 6th Revised Sheet No. 33, 2nd Revised Sheet No. 33.1, 4th Revised Sheet No. 34, Part 19, Section 3, 3rd Revised Sheet No. 39.1, 5th Revised Sheet No. 41, 4th Revised Sheet No. 42, 2nd Revised Sheet No. 43, Part 19, Section 15, 5th Revised Sheet No. 8, 1st Revised Sheet No. 8.1, 5th Revised Sheet No. 9, 6th Revised Sheet No. 10, 3rd Revised Sheet No. 11, 1st Revised Sheet No. 11.1, 3rd Revised Sheet No. 12, 3rd Revised Sheet No. 13, 3rd Revised Sheet No. 14, 3rd Revised Sheet No. 15,3rd Revised Sheet No. 16, 3rd Revised Sheet No. 17, Part 19, Section 20, 5th Revised Sheet No. 3, 5th Revised Sheet No. 4, 1st Revised Sheet No. 4.1, Original Sheet No. 4.2,5th Revised Sheet No. 5, 1st Revised Sheet No. 5.1, 1st Revised Sheet No. 5.2, 1stRevised Sheet No. 5.3, 2nd Revised Sheet No. 6, 1st Revised Sheet No. 6.1, 1st Revised Sheet No. 6.2, 1st Revised Sheet No. 6.3, 1st Revised Sheet No. 6.4, 1st Revised Sheet No. 6.5, 1st Revised Sheet No. 6.6, 1st Revised Sheet No. 6.7, 1st Revised Sheet No. 7,1st Revised Sheet No. 8, 1st Revised Sheet No. 9, 1st Revised Sheet No. 10, Part 19,Section 21, 3rd Revised Sheet No. 41, 6th Revised Sheet No. 43, and 3rd Revised Sheet No. 44.

5/13-408 and 13-409 (effective May 9, 2003)) the Commission on May 21, 2003, voted to dismiss this docket and to cancel the tariffs filed on December 24, 2002. Notice of Commission Action, Ill. C.C., Docket No. 02-0864 (May 22, 2003). In subsequent legal proceedings discussed in detail *infra*, the Commission was enjoined from implementing Section 13-408 and 13-409, those provisions were thereafter declared unlawful, and the injunction was interpreted on appeal to require reinstatement of this proceeding.

C. Executive Summary

This proceeding was reopened on December 16, 2003, by order of the Illinois Commerce Commission. Shortly thereafter a status hearing was held to set a schedule that would provide all parties an opportunity to present testimony and arguments supporting their positions. Since this was a reopening of the docket, the parties had already filed Direct Testimony, so the case was resumed at the Rebuttal stage. The following schedule was established and followed:

Jan. 13, 2004—Briefs were filed by all parties to determine the effect on this case of decisions made in other jurisdictions by the FCC and Federal Courts.

Jan. 20, 2004—SBCI filed rebuttal to staff and other parties. Staff and other parties filed rebuttal to each other.

Feb. 20, 2004—Staff and other parties filed rebuttal to SBCI.

Mar. 5. 2004—SBCI filed surrebuttal to staff and other parties. Staff and other parties filed surrebuttal to each other.

Mar. 15-19, 2004—Hearings were conducted in Chicago by the Administrative Law Judges.

Apr. 5, 2004—Initial Briefs to be filed.

Apr. 12, 2004—Reply Briefs to be filed.

Remainder of the schedule will be determined later by the ALJs.

1. Recurring Rates Inputs

a) Fill Factors

SBCI's LoopCAT model uses SBCI's actual fills to develop forward looking loop costs. SBCI's use of its actual fills is not compliant with TELRIC principles because it does not represent the forward-looking fills of an efficient carrier. On the other hand, the proposals of various CLECs to use usable capacity fill or target fill also fails to capture the level of fill (or conversely, spare capacity) that an efficient carrier would include in a network today. Because the ideal information upon which to base the forward looking fills of an efficient carrier is not readily available, Staff proposes that the Commission require use of adjusted actual fills factors. Staff approach recognizes that SBCI's actual fills are an appropriate starting point from which to determine efficient forward looking fills, yet avoids overestimating the efficiencies that could be achieved by a forwarding looking, efficient carrier.

b) Depreciation

The Commission should adopt the forward-looking equipment lives developed by the FCC and ordered by this Commission in ICC Docket 96-0486/0569. These lives are competitively neutral, encourage efficient competition and fairly balance the interests of ratepayers with subscribers. In contrast, financial reporting lives as proposed by SBCI unduly protect the interest of shareholders at the expense of wholesale and ultimately retail subscribers who will be required to pay higher rates in order to eliminate any possible obsolescence risks to shareholders.

c) Cost of Capital

SBCI, Staff and Joint CLECs submitted proposals regarding the appropriate cost of capital to be used in SBCI's costs studies for determining loop rates and non-recurring charges. Staff proposed an overall cost of capital of 8.62%; SBCI proposed a 12.19% overall cost of capital; and Joint CLECs proposed a 7.54% overall cost of capital. After reviewing all recommendations based on Staff's understanding of the FCC's guidelines for a TELRIC-based cost of capital, along with the Staff testimony rebutting testimony of SBCI and Joint CLEC witnesses, Staff continues to recommend that an 8.62% cost of capital be used in the UNE costs studies.

d) Cable Installation and DLC Engineering, Furnishing and Installation ("EFI") Factors

SBCI develops these factors for use in its LoopCAT model to determine UNE loop costs that are then input into specific costs studies, which are used in calculating total direct loop costs under TELRIC. Staff identified deficiencies with SBCI's development of these factors, specifically, that the company did not demonstrate that the costs developed represent the forward-looking costs of an efficient carrier, and that actual data used was old, historical data. The key points of Staff's analysis are that the Company makes no effort to isolate the costs of new network construction (whether in new developments or in existing neighborhoods), and fails to capture costs that reflect the economies of scale that would be realized from complete (rather than piecemeal) construction of a new network. As a result, there can be no doubt that the historical data relied on by SBCI overestimates costs. It should be noted that some, but not all, of

Staff's recommended changes to these factors were accepted by SBCI and included in subsequent LoopCAT processes, thereby reducing the costs somewhat. However, this did not correct all of Staff's criticisms. Therefore, it is Staff's recommendation that the company update the data as suggested by Staff to reflect forward-looking costs of an efficient carrier, and that costs studies be revised to reflect those changes.

e) Fiber/Copper Crossover Point

LoopCAT employs a 12,000 foot crossover point, which identifies the maximum loop length (as measured from the central office to the distribution terminal) for which both the feeder and distribution portion of the loop will utilize copper cable. For loops exceeding the crossover point, LoopCAT costs a loop based on utilization of fiber feeder cable, Next Generation Digital Loop Carrier ("NGDLC") equipment, and copper distribution cable. As will be explained below, SBCI's utilization of a 12,000 foot crossover point is inefficient and unnecessarily inflates costs because it designs a network that includes too many NGDLCs. Staff recommends that loop costs be determined on the basis of an 18,000 foot crossover point.

f) Other DLC Investment Cost Issues

In addition to designing a network that includes too many NGDLCs, the LoopCAT model exacerbates this problem by allowing for a very limited number of Remote Terminal ("RT") cabinet sizes to house the NGDLCs – which results in an even more inefficient network design that unnecessarily inflates per loop costs. Staff testified that although there are ten sizes of RT cabinets available form SBCI's vendor, SBCI's original LoopCAT model only included the two largest cabinet sizes. Because the larger

size cabinets cost more than the smaller size cabinets, LoopCAT's incorporation of what is essentially a "one size fits all" network design is likely to needlessly inflate per loop costs because LoopCAT automatically incorporates the higher costs of a large cabinet even if a smaller and less expensive cabinet would meet applicable capacity requirements. SBCI's rebuttal filing and revised LoopCAT study make clear that LoopCAT can be modified to include additional RT cabinet sizes. It is also clear that substantial cost reductions were obtained by adding two additional RT equipment choices. Therefore, Staff recommends that the Commission require SBCI to produce LoopCAT runs for all of its loop types in all access areas to determine the impact of including each of the RT cabinet types currently excluded, and to use the least cost mix of RT cabinets in its final loop cost development.

g) Premises Termination Costs

Staff's adjustment to SBCI's premises termination costs results from a proposed adjustment to the Company's labor time estimates for NID and drop wire installation costs (discussed in Section III.C.4.a) below) and Staff's proposed modifications to SBCI's capital cost factor (discussed in Section VI below) which flow into the calculation of labor rates. However, distribution terminal costs are no longer at issue because SBCI removed distribution terminal investment costs from LoopCAT after discovering those costs were being aggregated in cable accounts and therefore being double counted. One of Staff's concerns regarding premises termination costs was the SME estimate for travel time incorporated into each labor estimate. Staff developed revised travel time estimates based on one roundtrip between the company's facilities and an installation area, with shorter travel times from one end user's premises to the next.

Staff recommends that these revised installation time estimates be used to develop premises termination costs.

2. Nonrecurring Rate Issues

Non-recurring charges (hereafter "NRCs") are one-time charges that a CLEC incurs for use of an ILEC's network. CLEC's may use that network for end users migrating their existing service to a CLEC or establishing a new service with a CLEC. Examples of NRCs are service order changes, loop connection services, and services associated with connecting to the switch. NRCs are also incurred in connection with certain changes to an end user's service, such as when adding "Caller ID" or some other central office feature to an existing account.

In developing its NRC cost estimates, SBC did not give the subject matter experts it relied on a free hand in supplying inputs, but rather confined them to describing existing or anticipated SBC processes and technology. Furthermore, these subject matter experts were not presented as witnesses in this proceeding, and the record in this proceeding contains little information regarding the identities of these people, much less what they might say regarding the performance of the tasks they were assigned by SBC. These facts, in conjunction with the failures of the witnesses SBC did supply, necessarily mean that the Commission cannot be confident that the nonrecurring rates it adopts in this proceeding will be sufficiently supported as to constitute permanent rates.

While the information presented by SBC in this proceeding does not support the adoption of permanent nonrecurring provisioning costs and resulting rates, the

Commission is certainly presented with much more extensive and complete information in this proceeding than it was presented with when determining many of its existing nonrecurring rates, many of which are, in fact, the product of inter-party negotiations. For these reasons, Staff recommends the Commission adopt as interim rates subject to true up SBC's proposed rates with the adjustments proposed by Staff below and with any intervenor proposed adjustments the Commission finds appropriate.

a) Service Order NRC Studies

SBC Illinois' proposed non-recurring service ordering charges are inflated due to an overly pessimistic calculation of electronic flow through rate for service orders. Except for EELs, SBC Illinois' proposed non-recurring service ordering charges are based simply on historical levels of service order flow through, contrary to the FCC's definition of TELRIC. By basing electronic flow through rates on the actual levels attained in July, August, and September, 2002, the Company has understated the appropriate levels of flow through for TELRIC purposes, thereby overly inflating service ordering charges. The Commission should adopt the same flow through rates it found on October 16, 2001, in Docket 98-0396, when the Commission ordered a 98% flow through rate be used to determine non-recurring service order costs.

b) Provisioning NRC Studies

SBC claims that the Special Services Center (SSC) / Local Operations Center (LOC) and Circuit Provisioning Center (CPC) / Hi-Cap Provisioning Center (HPC) conduct numerous and expensive testing activities when provisioning loops. See, generally, SBC Ex. 6.0. However, in the course of this proceeding, SBC has provided

virtually no support, and certainly no credible support, for the charges associated with these activities. When Staff identified discrepancies in SBC's studies, SBC not only failed to provide support for its initial estimates, but also made changes to its studies and failed *again* to support these changes. It is certainly conceivable that some testing by SSS/LOC and CPC/HPC is consistent with TELRIC. However, SBC has utterly failed to prove this to be the case. In the absence of credible evidence to support the work performed by these groups in provisioning UNE loops, the Commission should not permit SBC to assess charges for either standalone loops or for EEL loops, which include costs related to the SSC/LOC and CPC/HPC groups.

In presenting its NRC loop provisioning cost estimates, SBC has demonstrated that its CP&M group can provision cross connects on the customers' side of UNE loops in less time than DOG. SBC has offered no technological reason for the existence of this difference. Rather, it has argued that CP&M does the job more quickly due to the way CP&M is structured. Thus, based on its contentions, SBC has done nothing more than demonstrate that its DOG group is inefficient when provisioning UNE loops. To remedy this problem, the Commission should, as recommended above, order SBC to replace the its EEL loop DOG provisioning estimates with the CP&M provisioning costs SBC estimates for stand alone loops.

In presenting its EEL dedicated transport and multiplexing provisioning cost estimates, SBC has failed to explain why every task performed when multiplexing is established in conjunction with an order for dedicated transport needs to be performed *again* when a separate multiplexing order is placed; nonetheless, SBC assumes that *every* task *always* has to be performed twice, or at least *charged for* twice, even if, as

appears likely, it is only done once. In particular, it does not explain whether requesting CLECs are charged for multiplexing twice because they are required by SBC's ordering systems to place two separate orders when initially establishing an EEL. Nor does it explain whether SBC must repeat every task required to initially provision multiplexing when a CLEC requests a reconfiguration of the multiplexing arrangement in future periods. To ensure that SBC does not assess charges twice for work activities that it performs once, the Commission should order SBC to refrain from assessing multiplexing charges in combination with orders for dedicated transport. Instead, it should permit SBC to assess these charges if and only if CLECs request reconfiguration of existing multiplexing arrangements. SBC has failed to provide information that would ensure that this change alone would eliminate any chance of double counting for multiplexing work. For example, it is unclear whether every activity that SBC performs to initially configure multiplexing needs to be repeated when reconfiguring multiplexing. This change, however, would certainly eliminate double counting of activities for initial installations.

Based on SBC's application of its DOP factor to UNE-P provisioning, it has misapplied its DOP factor to Standalone UNE POTS Loop provisioning. The Commission should reject the CP&M work group occurrence factor of ***BEGIN CONF xxxxxx END CONF*** presented by SBC. The Commission should, instead, require the company to assume a CP&M work group occurrence factor for standalone POTS UNE loops equal to ***BEGIN CONF xxxxx END CONF*** or, in the event a different DOP factor is adopted in this proceeding, ***BEGIN CONF xxxxx END CONF*** times (1 – the DOP factor adopted in this proceeding). This proposed rate corrects the

inconsistency in SBC's cost studies by assuming that CP&M work group occurrence factor are the same for Standalone UNE POTS loops as they are for UNE-P POTS loops. See, generally, Staff Ex. 7.0 at 62 and 63.

In developing its UNE-P POTS Loop Line Connection Cost estimates, SBC assumes that its Field Operations Group (FOG) provisioning group will need to install cross connects and perform related activities in the central office a certain percentage of time; the work group occurrence factor is equal to that figure. SBC assumes the same FOG work group occurrence factors with respect to removal of cross connects and related activities in the central office. Staff has demonstrated that SBC failed to account for instances where a customer served by a CLEC UNE-P migrates back to SBC retail service or to a CLEC providing service using the loop and switching elements. SBC's study assumes that customers served via UNE-P never migrate to another provider (including SBC), which uses SBC facilities. SBC has, to date, failed to address this concern. Therefore, the Commission should reject SBC's proposed FOG work group occurrence factors with respect to removal of cross connects and related activities in the central office.

SBC proposes to include both installation and disconnection in the estimates of UNE connection costs and to use a 2 year location life for purposes of discounting disconnection costs. SBC has failed provide credible support for its 2 year location life assumption or provide credibly supported revised location life estimates. The Commission should order SBC to calculate the location life for each loop type based upon the average location life of SBC's comparable end-user offerings. Staff recommends, and the Commission should adopt, a 4 year location life for the purpose

of discount disconnection charges. Regardless of which location life the Commission directs SBC to adopt, it should nonetheless direct SBC to begin assessing separate connection and disconnection fees when its billing systems are able to do so in the first quarter of 2005.

SBC indicated in its initial filing that its physical provisioning groups performed activities to convert special access circuits to UNE combinations. SBC listed these activities in support of two charges for special access to UNE conversions: the Design & Coordination charge and the Demarcation Retag charge. SBC susbsequently withdrew its proposal to assess a Demarcation Retag charge. SBC's testimony provides strong indication that its Design & Coordination charge, which it continues to support, is grossly inflated at best and perhaps entirely inappropriate. SBC has been unable to respond to further attempts to discern what, if any, activities its provisioning groups would need to perform in a forward looking environment in order to actually convert special access circuits to UNE combinations.

c) Switch Port And Features NRC Studies

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

d) Labor Rates

SBCI updated its labor rates when the ICC reopened Docket 02-0864, but Joint CLECs made motions to strike the new testimony, and the new labor rates were stricken. In addition, it is Staff's position that SBC did not develop the NRCs it proposes in this proceeding in a manner consistent with TELRIC ratemaking principles. SBC's

use of the so-called "support asset factor" ("SAF"), as an adder to wage rates is directly contrary to TELRIC principles, and to prior Commission orders. The "support assets factor" assigns costs of certain physical assets directly to the labor rates of employees who use those assets. The use of the SAF adds significantly to the labor rate of certain classes of employees. In short, the addition of the SAF increases the level of labor rates. Since labor costs are a major component – perhaps, the major component -- of total costs in the determination of non-recurring network element costs, this change in method significantly increases NRCs. Staff recommends that the SAF be eliminated from labor rates, and if applicable, the costs in the SAF be included as part of the company's common costs that are allocated to both retail and wholesale services.

3. Shared And Common Cost Factors

SBC claims that its Shared and Common ("S&C") factor is the most accurate representation of its shared and common costs. Staff, however, disagrees with SBCI's methodology for recovering shared and common costs. Staff identified several fundamental flaws in SBCI's proposal for shared and common cost recovery, and proposes changes to the methodology to correct those flaws. Staff recommends that the Commission use Staff's revised methodology to determine a new shared and common cost allocator that will reduce the company's proposed allocator considerably.

4. Annual Charge and Other Factors

Annual Charge Factors ("ACFs") are factors that are applied to the total investment for a piece of network equipment to derive the total annual cost of providing the equipment. Except for the automatic adjustment of maintenance expense as fill

factors increase; Staff did not take issue with the methodology employed by SBCI to calculate ACFs. Staff did, however, take issue with a number of inputs used in SBCI's ACF Study. Specifically, Staff took issue with the sales tax rate, the cost of capital, cost of debt and debt-to-equity ratio and average service lives and salvage values. One aspect of SBCI's ACF Study methodology that Staff found objectionable was the automatic adjustment of maintenance expense as fill factors increase. In as much as there is no credible basis to conclude that changes need to be made to ACFs as a result of Staff's fill factor adjustments, this improper aspect of SBCI's ACF Study was avoided in calculating Staff's revised ACFs. Staff recommends that its proposed ACFs as set forth in Schedule 24.04P be utilized in setting SBCI's UNE loop rates.

5. Recommended Rates

Staff recommends that the Commission adopt the Staff adjustments recommended above which are reflected in the rates presented by Staff in Schedule 6 of Staff Exhibit 22.0. If the Commission does not accept Staff's recommendation, and determines that input changes recommended by Staff and other parties should be used to develop UNE loop and NRC rates, Staff recommends that the Commission provide those changed input amounts in its order in this proceeding and have both SBCI and Staff rerun the LoopCAT model and the various costs studies necessary to develop TELRIC costs, then apply the Commission-approved Shared and Common cost allocator to those costs to determine new UNE loop and NRC rates in Illinois. If the Commission is undecided on NRC costs, Staff recommends as an alternative that the Commission order that Staff's proposed NRC adjustments, which are reflected in the rates set forth in Schedules 26.1 through 26.5 be ordered made along with any

appropriate intervenor adjustments until such time as the company can file new NRC rates based on costs for which they have provided acceptable proof.

II. General Issues

A. Legal Requirements For Setting UNE Rates

1. TELRIC Pricing Principles

Section 251(d) of the Telecommunications Act of 1996, which establishes the basic standards for UNE prices, provides that:

> (1) Interconnection and network element charges. Determinations by a State commission of the just and reasonable rate for the interconnection of facilities and equipment for purposes of subsection (c)(2) of section 251, and the just and reasonable rate for network elements for purposes of subsection (c)(3) of such section—
>
> (A) shall be—
>
> (i) based on the cost (determined without reference to a rate-of-return or other rate-based proceeding) of providing the interconnection or network element (whichever is applicable), and
>
> (ii) nondiscriminatory, and
>
> (B) may include a reasonable profit.
>
> 47 U.S.C. §251(d)

On August 8, 1996, the FCC issued its *First Report and Order*, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket Nos. 96-98 and 95-185, FCC 96-325, 11 FCC Rcd 15499; 1996 FCC LEXIS 4312; 4 Comm. Reg. (P & F) (August 8, 1996 Released; Adopted August 1, 1996) (hereafter, "*First Report and Order*" or "*Local Competition*

Order"). Among other matters, the *First Report and Order* promulgated regulations governing the manner in which Section 251(d) was to be implemented. *See* First Report and Order, App. B.

The most important of these for purposes of this proceeding is Section 51.505, entitled "Forward Looking Economic Cost", which provides that:

> (a) In general. The forward-looking economic cost of an element equals the sum of:
>
> > (1) The total element long-run incremental cost of the element, as described in paragraph (b); and
> >
> > (2) A reasonable allocation of forward-looking common costs, as described in paragraph (c).
>
> (b) Total element long-run incremental cost. The total element long-run incremental cost of an element is the forward-looking cost over the long run of the total quantity of the facilities and functions that are directly attributable to, or reasonably identifiable as incremental to, such element, calculated taking as a given the incumbent LEC's provision of other elements.
>
> > (1) Efficient network configuration. The total element long-run incremental cost of an element should be measured based on the use of the most efficient telecommunications technology currently available and the lowest cost network configuration, given the existing location of the incumbent LEC's wire centers.
> >
> > (2) Forward-looking cost of capital. The forward-looking cost of capital shall be used in calculating the total element long-run incremental cost of an element.
> >
> > (3) Depreciation rates. The depreciation rates used in calculating forward-looking economic costs of elements shall be economic depreciation rates.
>
> (c) Reasonable allocation of forward-looking common costs—
>
> > (1) Forward-looking common costs. Forward-looking common costs are economic costs efficiently incurred in providing a group of elements or services (which may include all elements or services provided by the incumbent LEC) that cannot be attributed directly to individual elements or services.

(2) Reasonable allocation.

(i) The sum of a reasonable allocation of forward-looking common costs and the total element long-run incremental cost of an element shall not exceed the stand-alone costs associated with the element. In this context, stand-alone costs are the total forward-looking costs, including corporate costs, that would be incurred to produce a given element if that element were provided by an efficient firm that produced nothing but the given element.

(ii) The sum of the allocation of forward-looking common costs for all elements and services shall equal the total forward-looking common costs, exclusive of retail costs, attributable to operating the incumbent LEC's total network, so as to provide all the elements and services offered.

(d) Factors that may not be considered. The following factors shall not be considered in a calculation of the forward-looking economic cost of an element:

(1) Embedded costs. Embedded costs are the costs that the incumbent LEC incurred in the past and that are recorded in the incumbent LEC's books of accounts;

(2) Retail costs. Retail costs include the costs of marketing, billing, collection, and other costs associated with offering retail telecommunications services to subscribers who are not telecommunications carriers, described in Sec. 51.609;

(3) Opportunity costs. Opportunity costs include the revenues that the incumbent LEC would have received for the sale of telecommunications services, in the absence of competition from telecommunications carriers that purchase elements; and

(4) Revenues to subsidize other services. Revenues to subsidize other services include revenues associated with elements or telecommunications service offerings other than the element for which a rate is being established.

(e) Cost study requirements. An incumbent LEC must prove to the state commission that the rates for each element it offers do not exceed the forward-looking economic cost per unit of providing the element, using a cost study that complies with the methodology set forth in this section and Sec. 51.511.

(1) A state commission may set a rate outside the proxy ranges or above the proxy ceilings described in Sec. 51.513 only if that

> commission has given full and fair effect to the economic cost based pricing methodology described in this section and Sec. 51.511 in a state proceeding that meets the requirements of paragraph (e)(2) of this section.
>
> (2) Any state proceeding conducted pursuant to this section shall provide notice and an opportunity for comment to affected parties and shall result in the creation of a written factual record that is sufficient for purposes of review. The record of any state proceeding in which a state commission considers a cost study for purposes of establishing rates under this section shall include any such cost study.

47 C.F.R. §51.505

In its *First Report and Order*, the FCC states its reasons for adopting forward-looking TELRIC principles as follows:

> [P]rices that potential entrants pay for these elements [UNEs] should reflect forward-looking economic costs in order to encourage efficient levels of investment and entry.
>
> …
>
> Adopting a pricing methodology based on forward-looking, economic costs best replicates, to the extent possible, the conditions of a competitive market. In addition, a forward-looking cost methodology reduces the ability of an incumbent LEC to engage in anti-competitive behavior. Congress recognized in the 1996 Act that access to the incumbent LECs' bottleneck facilities is critical to making meaningful competition possible. As a result of the availability to competitors of the incumbent LEC's unbundled elements at their economic cost, consumers will be able to reap the benefits of the incumbent LECs' economies of scale and scope, as well as the benefits of competition. Because a pricing methodology based on forward-looking costs simulates the conditions in a competitive marketplace, it allows the requesting carrier to produce efficiently and to compete effectively, which should drive retail prices to their competitive levels.

First Report and Order, ¶¶ 672, 679

The FCC expanded at some length and in some detail on the TELRIC methodology, stating as follows:

We conclude that, under a TELRIC methodology, incumbent LECs' prices for interconnection and unbundled network elements shall recover the forward-looking costs directly attributable to the specified element, as well as a reasonable allocation of forward-looking common costs. Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a reasonable projection of the actual total usage of the element. Directly attributable forward-looking costs include the incremental costs of facilities and operations that are dedicated to the element. Such costs typically include the investment costs and expenses related to primary plant used to provide that element. Directly attributable forward-looking costs also include the incremental costs of shared facilities and operations. Those costs shall be attributed to specific elements to the greatest extent possible. For example, the costs of conduits shared by both transport and local loops, and the costs of central office facilities shared by both local switching and tandem switching, shall be attributed to specific elements in reasonable proportions. More broadly, certain shared costs that have conventionally been treated as common costs (or overheads) shall be attributed directly to the individual elements to the greatest extent possible. The forward-looking costs directly attributable to local loops, for example, shall include not only the cost of the installed copper wire and telephone poles but also the cost of payroll and other back office operations relating to the line technicians, in addition to other attributable costs.

Id., ¶682 (footnote omitted)

The FCC further determined that:

[T]he forward-looking economic cost for interconnection and unbundled elements would be based on the most efficient network architecture, sizing, technology, and operating decisions that are operationally feasible and currently available to the industry. Prices based on the least cost, most efficient network design and technology replicate conditions in a highly competitive marketplace by not basing prices on existing network design and investments unless they represent the least cost systems available for purchase.

Id., ¶683 (Emphasis added)

The FCC found that a single departure from maximum efficiency in determining TELRIC-based UNE rates was necessary, and indeed sufficient, to give CLECs the incentive to deploy their own facilities, given the availability of UNEs. The FCC deliberately permitted the use of existing wire center locations in TELRIC estimation, as noted in the following passage:

> [P]rices for interconnection and access to unbundled elements would be developed from a forward-looking economic cost methodology based on the most efficient technology deployed in the incumbent LEC's current wire center locations. This approach mitigates incumbent LEC's concerns that a forward-looking pricing methodology ignores existing network design… Moreover, this approach encourages facilities-based competition to the extent that new entrants, by designing more efficient network configurations, are able to provide the service at a lower cost than the incumbent LEC.
>
> Id., ¶685

In adopting the TELRIC rules, the FCC specifically rejected the proposition that UNE rates ought to be based on embedded costs. It found that:

> Under [an embedded cost methodology], the cost of interconnection and unbundled network elements would be based on existing network design and technology that are currently in operation. Because this approach is not based on a hypothetical network in the short run, **incumbent LECs could recover costs based on their existing operations, and prices for interconnection and unbundled elements that reflect inefficient or obsolete network design and technology**.
>
> Id., ¶684 (emphasis added)

The FCC's TELRIC rules and principles have been, perhaps inevitably, the subject of considerable litigation. This, however, has been fully resolved; the U.S. Supreme Court has found the TELRIC rules to be entirely consistent with the pricing provisions of Section 251 of the Telecommunications Act. Verizon v. FCC, 535 U.S.

467, 503-505; 122 S. Ct. 1646, 1668; 152 L.Ed. 2d 701, 732-33 (2002). Accordingly, SBC's rates for UNEs must comply in all respects with the TELRIC rules.

2. Commission TELRIC Proceedings

The Commission has successfully applied TELRIC principles in prior dockets. First, in its *Second Interim Order*, Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic, ICC Docket Nos. 96-0486 / 96-0569 (consol.) (February 17, 1998)(hereafter "TELRIC Order"), the Commission set TELRIC rates for SBC. *See, generally*, TELRIC Order. In its TELRIC Order, the Commission established a cost of capital, depreciation, fill factors, and shared and common cost load to be used by SBC in establishing TELRIC-compliant UNE rates, and directed SBC to re-run its cost studies using those inputs. TELRIC Order at 21, 26-7, 32-4, 46-53, 138. The Commission further found that SBC had failed to support its non-recurring charges, and, indeed, had filed tariffs that "ma[de] it impossible for the Commission, new entrants and even [SBC] itself, to cogently determine how and when nonrecurring charges apply." TELRIC Order at 91-93. The Commission, accordingly, directed the use of interim non-recurring rates until such time as SBC filed a conforming tariff. Id. at 138.

SBC filed tariffs and cost studies purporting to support the non-recurring charges the Commission disallowed in the *TELRIC Order*. See *Order* at 1-3, Illinois Commerce Commission On Its Own Motion: Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues,

ICC Docket No. 98-0396 (October 16, 2001) (hereafter "TELRIC II Order"). The Commission found SBC's tariffs and cost studies to be satisfactory in some respects and with respect to some NRCs, but not to others. *See, generally*, TELRIC II Order. The Commission reopened the TELRIC II proceeding, and adopted interim NRCs, some of which remain in effect. *See, generally*, *Order on Reopening*, Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues, ICC Docket No. 98-0396 (April 30, 2002) (hereafter "TELRIC II Order on Reopening"). Finally, the Commission set rates for SBC's unbundled local switching UNE. *See, generally*, *Order,* Illinois Commerce Commission On Its Own Motion v. Illinois Bell Telephone Company: investigation into Tariff Proceeding Providing unbundled Local Switching with Shared Transport, ICC Docket No. 00-0700 (July 12, 2002) (hereafter "TELRIC 2000 Order"). Accordingly, it can be fairly said that the Commission has ample experience in TELRIC proceedings.

3. SBC's December 24, 2002 Filing

SBC forthrightly states that its December 24, 2004 filing is based on the company's interpretation of TELRIC, an interpretation that "do[es] not measure historical costs (i.e., accounting costs shown on the books of the Company), **but rather the prospective costs SBC Illinois expects to incur in providing UNEs**." SBC Ex. 1.0 at 8 (emphasis added). SBC's version of the TELRIC methodology, in other words, is based on the assumption that SBC is in fact a least-cost, most efficient provider, and its actual data – fill factors, cost of provisioning, and cost of capital – is in fact nearly

identical to that which a least–cost, most efficient provider would demonstrate. *See, e.g.*, SBC Ex. 2.0 at 5 *et seq*.

SBC's interpretation of the TELRIC standard is valid and acceptable only if it demonstrates that its prospective costs are wholly consistent with those of an efficient provider. Staff Ex. 1.0 at 12. SBC Illinois must satisfy the FCC's requirements for TELRIC cost studies, not its own. Id. As shown above, an acceptable TELRIC study does not measure "…the prospective costs *SBC Illinois* expects to incur in providing UNEs[;]" instead, it estimates the prospective costs *an efficient provider* would incur, using SBC Illinois' current wire center locations and "the most efficient network architecture, sizing, technology, and operating decisions that are operationally feasible and currently available to the industry." 47 C.F.R. §51.505(b); *see also, e.g.*, First Report and Order, ¶¶672, 679, 683, 685. In sum, unless SBC is an efficient provider, and persuasively demonstrates this to the Commission, its embedded costs and fill factors, and its actual network architecture, sizing, technology, and operating decisions do not form an adequate basis for the development of TELRIC-compliant UNE rates.

The TELRIC rules do not absolutely proscribe the use of a carrier's actual data. SBC *might have* demonstrated in this proceeding that its methods and results in evolving the tariffs and cost studies here at issue are entirely consistent with those of an efficient firm utilizing the most efficient currently available network technology. Staff Ex. 1.0 at 13; Staff Ex. 21.0 at 12, *et seq*. However, it has failed to do so in this proceeding. Id. SBC's decision to model its own prospective costs to determine TELRIC, taken by itself, is not fatal. Rather, given this initial choice, SBC's fails to then demonstrate, as required, that these modeled costs are wholly consistent with those of an efficient firm.

SBC's evidentiary presentation and methodology in this proceeding thus fail – markedly, and in numerous ways – to satisfy TELRIC principles; the details of these failures will be examined in greater detail herein. In summary, SBC's deviations from TELRIC principles concerning the recurring UNE rates in the proceeding are as follows: the company improperly uses actual, unadjusted fill factors to develop its rates. Staff Ex. 10.0; Staff Ex. 25.0. It significantly overstates its reasonable forward-looking rate of return for UNEs. Staff Ex. 12.0; Staff Ex.31.0. It improperly shortens the economic life of its telephone plant and equipment in a manner inconsistent with its own internal operations. Staff Ex. 13.0; Staff Ex. 22.0. It uses an inefficient fiber-copper crossover point in its modeling, and fails to take advantage of lower cost DLC equipment that is currently available. Staff Ex. 4.0; Staff Ex. 24.0. Likewise, the company improperly allocates 100% of DLC cabinet costs to the UNE loop. Id. The company uses inappropriate, historical costs to develop installation and Engineering, Furnishing and Installation (EFI) factors. Staff Ex. 3.0; Staff Ex. 23.0. It overstates travel times for network installers. Id.

Nor are these all of the liberties that SBC takes with TELRIC principles. With respect to its proposed shared and common cost allocation, the company overstates uncollectible expense. Staff Ex. 9.0; Staff Ex. 29.0. SBC further improperly attempts to recover shared marketing costs in UNE rates. Id. It fails to adjust the shared and common cost factor for personnel reductions, or for transitional benefit obligation expenses. Id. The company also proposes a shared cost factor that relies on an inappropriate model of a wholesale shared network. Staff Ex. 8.0; Staff Ex. 28.0. It

includes common costs associated with historical OSS testing costs, Tier 1 and Tier 2 remedy payments, State Digital Divide and Code Part 732 retail credits. Id.

With respect to the non-recurring charges in this proceeding, SBC similarly fails to demonstrate that it has, as required by the FCC's TELRIC rules, both considered and utilized all currently available telecommunications technology, and modeled the lowest cost network configuration in developing NRCs. Staff Ex. 7.0; Staff Ex. 27.0. It also improperly includes a recurring support asset costs in non-recurring charges. Staff Ex. 6.0; Staff Ex. 26.0. Lastly, SBC has inflated its non-recurring service ordering charges due to an overly pessimistic calculation of electronic flow through rate for service orders based on historical levels of service order flow through. Staff Ex. 11.0; Staff Ex. 31.0.

SBC has not met its burden of demonstrating that the cost studies and analyses it filed in this proceeding meet the applicable FCC and ICC requirements. Accordingly, the Commission cannot find that SBC's proposed UNE rates derived from these cost studies and analyses comply adequately with TELRIC principles, are either just or reasonable, or satisfy imputation requirements. As a result, the Commission cannot, and should not, adopt SBC's proposed rates. In the case of its proposed non-recurring rates, SBC's presentation is so deficient that the Commission could quite properly reject the company's cost studies in their entirety.

With respect to SBC's recurring cost model and studies, the Staff has corrected SBC's departures from TELRIC requirements, to the degree possible given the limitations of SBC's cost models and methodologies, and the available information. Staff Ex. 1.0 at 14. Staff's recommended rates reflect adjustments necessary to bring SBC Illinois' cost models, methodologies and input values into acceptable compliance with

TELRIC requirements. Id. Moreover, Staff's recommended rates are just and reasonable, and satisfy statutory imputation requirements, which must be met in this proceeding. Id. Staff's recommended recurring rates and imputation analysis are presented as schedules to Staff testimony. *See* Staff Ex. 22.0, Schedule 6 (recurring rates); Staff Ex. 24.0, Schedules 1 through 4 (imputation analysis).

As noted above, the Commission properly might, based on the record before it, conclude that the cost models and methodologies used by SBC to develop nonrecurring charges are so irreparably defective from the standpoint of meeting the required burden of proof of TELRIC compliance that these should be rejected in their entirety. The Staff does not recommend this approach. Rather, the Staff recommends that its proposed NRCs be adopted on an interim basis, and that SBC be directed to file an NRC study consistent with Staff's recommendations as set forth herein. *See* Staff Ex. 26.0, Schedules 1 through 6 (recommended NRCs); *see also* section IV.A.1 herein.

Should the Commission adopt the Staff's proposed rates on an interim basis as recommended, the Staff recommends that the Commission provide SBC with guidance concerning required and appropriate revisions to its cost models, methodologies and inputs. Staff Ex. 1.0 at 15. This will ensure that SBC has ample opportunity to amend its nonrecurring costs analyses and methodologies to bring them into accord with the TELRIC standard, and ultimately to re-file proposed nonrecurring UNE rates that comply with TELRIC requirements. Id.

4. Burden of Proof

Regardless of how SBC seeks to characterize this proceeding, it unquestionably bears the burden of proof in this proceeding. First, Section 9-201 of the Public Utilities

Act places the burden of proof in a tariff investigation squarely upon the company filing the tariff, providing that:

> In …[a] hearing [convened to establish the propriety of a tariff], the burden of proof to establish the justness and reasonableness of the proposed rates or other charges, classifications, contracts, practices, rules or regulations, in whole and in part, shall be upon the utility.
>
> 220 ILCS 5/9-102(c)

The FCC fully concurs in the notion that the filing party has the burden of proof. In its First Report and Order, the FCC stated that:

> We note that incumbent LECs have greater access to the cost information necessary to calculate the incremental cost of the unbundled elements of the network. Given this asymmetric access to cost data, **we find that incumbent LECs must prove to the state commission the nature and magnitude of any forward-looking cost that it seeks to recover in the prices of interconnection and unbundled network elements**.
>
> First Report and Order, ¶680 (emphasis added)

Finally, it is well settled as a matter of administrative law that the party seeking relief bears the burden of proof. People v. Orth, 124 Ill. 2d 326, 337 (1988). The term "burden of proof" includes the burden of going forward with the evidence, and the burden of persuading the trier of fact. People v. Ziltz, 98 Ill. 2d. 38, 43 (1983). The burden of persuading the trier of fact does not shift throughout the proceeding, but remains with the party seeking relief. Ambrose v. Thornton Twp. School Trustees, 274 Ill. App. 3d 676, 690 (1st Dist 1995), *app. den.*, 164 Ill. 2d 557 (1995); Chicago Board of Trade v. Dow Jones & Co., 108 Ill. App. 3d 681, 686 (1st Dist. 1982).

As the party seeking relief, as the party filing the tariffs at issue here, and as the ILEC seeking to recover UNE prices in this proceeding, SBC bears the burden of proof.

B. Economic/Policy Issues Associated With UNE Pricing (Including Benchmarking Analyses and Trends in Telecommunications Cost)

The economics of UNE pricing is clearly an issue at the heart of this proceeding. SBC argues that what it perceives to be artificially low, allegedly non-compensatory UNE prices do considerable harm to the telecommunications industry, stifling investment by CLECs in telecommunications facilities, causing them to rely on ILECs, giving them incentives to serve only the most profitable customers, and causing other perceived undesirable economic outcomes. *See, e.g.*, SBC Ex. 2.0 at 33-39. The CLECs counter this argument by arguing that it is largely irrelevant, since UNE prices are not, in fact, artificially low, and that SBC's attempts in this proceeding to demonstrate that UNE rates are artificially low and non-compensatory are unconvincing and defective. Joint CLEC Ex. 2.0 at 23 *et seq*.

The Staff recommends that the Commission not attempt to encourage competition through artificially low UNE prices, which are prices lower than forward looking costs for an efficient firm. Staff Ex. 2.0 at 4. This type of social engineering will have many of the negative implications ascribed to it by SBC. Id. On the other hand, the Staff recommends that the Commission not *discourage* competition by allowing SBC to charge excessively *high* UNE rates, which are rates *higher* than forward looking costs for an efficient firm. Id. There are a number of reasons for this. Permitting SBC to overcharge for UNEs will lead to: (1) excess profits for SBC Illinois; (2) higher prices for consumers; (3) inefficient and unnecessary duplication of facilities; (4) reduced competition; and (5) less consumer choice. Id.

If UNE rates are priced above forward-looking costs, SBC will receive excess profits for a service for which it has virtual monopoly control.[2] Staff Ex. 2.0 at 4. SBC's UNEs could become overpriced if the cost of capital used in UNE pricing is more than is required by the market. Id. Likewise, excessive prices might result if the assumptions for the other key inputs underlying the UNE rates are inappropriate. Id. For example, the fill factor used to derive UNE rates may be too low or the depreciation rate and the shared and common factors too high. Use of an inappropriate input will result in a UNE cost estimate that is too high relative to the true forward looking costs. Id.

Second, excessive UNE rates will result in CLECs paying more than is necessary for UNEs. Staff Ex. 2.0 sat 4. Since CLECs are very likely to pass on the cost of these excessively priced UNEs to their customers[3], UNE rates that are too high will result in telephone rates that are too high, and subscribers will bear the cost of excessively high UNE rates. Id.

In addition, SBC business customers will also pay for excessively high UNE rates. SBC must price business access services in Illinois above the imputed cost of the unbundled network elements used by that business line. *See* 220 ILCS 5/13.505.1, 83 Ill. Admin. Code §792.10 *et seq*.; *see also* Section IX, *infra*. If SBC sets business access rates below the costs of the unbundled network elements used by that business line, then by law SBC must increase the business rate to levels implied by UNE prices.

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[2] Even the *Triennial Review Order* observed that the ILEC monopoly on loop deployment to mass-market customers remains almost entirely unchallenged. *See, e.g.,* Triennial Review Order, ¶¶199, 205, 209, 211, 225-26.

[3] The CLECS could also respond to higher UNE rates by switching to resale. However, resale rates are higher than current UNE-P rates, and switching to resale will increase CLEC and eventually consumer costs also. The CLECs could also theoretically absorb the higher input costs themselves but there is considerable question whether this is financially possible. Neither of these alternatives is sustainable over the long term.

Staff Ex. 2.0 at 5; *see also* Staff Ex. 4.0 at 28-39. Thus, if SBC UNE rates increase such that business access line rates are priced below the imputed costs of the unbundled network elements used in the provision of business access lines, access line rates will fail the imputation test, and SBC will be required by statute to raise them in order to satisfy imputation requirements. Id.

Third, excessively high UNE rates will result in wasteful and inefficient duplication of facilities. Staff Ex. 2.0 at 5. It is widely recognized – indeed, by the U.S. Supreme Court -- that the loop, the element whose pricing is at issue in this proceeding, is difficult and expensive to duplicate, and, once duplicated, characterized by fixed and sunk costs. *See, e.g.*, Verizon v. FCC, 535 U.S. 467, 510, n.27; 122 S. Ct. 1646; 152 L.Ed. 2d 701 (2002) ("[E]ntrants may need to share some facilities that are very expensive to duplicate (say, loop elements) in order to be able to compete in other, more sensibly duplicable elements[.]"); *see also*, Triennial Review Order, ¶205; First Report and Order, ¶283. It is economically irrational to duplicate loop plant for serving mass-market customers. *See* Staff Ex. 2.0 at 5-6. However, overpriced UNEs might give competitors a strong incentive to engage in this wasteful practice because if UNEs are overpriced CLECs may find it is more cost effective to inefficiently replicate facilities rather than lease them from SBC.

Fourth, UNE prices that are too high are likely to result in significantly less competition. Staff Ex. 2.0 at 6. In some markets, CLECs cannot build their own facilities. Id. Indeed, even where CLECs have invested heavily in facilities,[4] they nonetheless

[4] That CLECs have indeed invested heavily in facilities is an indisputable fact. *See* Verizon v. FCC, 535 U.S. at 517 (U.S. Supreme Court note that ILECs made no attempt to dispute CLEC claims of $55 billion in CLEC investment in facilities).

typically rely on loops provided by SBC, since, as noted above, loop plant serving the mass market cannot be economically reproduced. Staff Ex. 2.0 at 6, n.4. Thus, CLECs can offer service only through UNEs (at least the UNE loop), or possibly resale. Staff Ex. 2.0 at 6. If UNE rates are excessive, therefore CLECs may not enter these markets, reducing choice for consumers. Id.

The FCC, like the U.S. Supreme Court, has long understood that it may be undesirable for competitors to reproduce the network. The FCC, in its *First Report and Order*, noted that:

> Requiring new entrants to duplicate unnecessarily even a part of the incumbent's network could generate delay and higher costs for new entrants, and thereby impede entry by competing local providers and delay competition, contrary to the goals of the 1996 Act.
>
> First Report and Order, ¶283

This is particularly true of mass and residential markets. Staff Ex. 2.0 at 6. Retail rates in residential markets are set based on LRSIC (Long Run Service Incremental Cost) pricing rules. Id. UNE prices are based upon TELRIC (Total Element Long Run Incremental Cost) pricing. Id. If SBC's proposed UNE rates are implemented, it may mean that the cost of buying UNEs from SBCI to serve residential customers may exceed the rate that SBC charges retail customers for residential service. Id.

Finally, excessively priced UNEs such as SBC proposes could also result in the re-monopolization of much of the local telephone market. Staff Ex. 3.0 at 14; Staff Ex. 22.0 at 8. That is, excessively priced UNEs will raise costs for CLECs, and, as a result, CLECs will not be able to profitably serve some customers that they currently serve. Id. Customers who CLECs cannot profitably serve at higher UNE-L rates will therefore

have no choice but to turn to SBC for service and will therefore effectively have no choice of supplier. Id.

As the Staff will show, SBC's proposed UNE-L rates are indeed excessive, and will, if adopted, lead to some or all of the undesirable results described above.

Benchmarking Analyses

SBC attempts to justify its proposed increases to UNE loop rates by arguing that its UNE loop rates are among the lowest in the nation. SBC Ex. 2.0 at 6 *et seq*. However, the Commission should discount this assertion.

The Staff does not dispute that SBC's UNE-L rates are fairly low in comparison to those charged by ILECs in other parts of the country. Staff Ex. 2.0 at 8. However, one possible, and indeed likely, explanation for this is the fact that the costs incurred by SBC in providing UNE-L in Illinois are among the lowest in the nation. Id. SBC's service territory in Illinois is relatively densely populated, is not mountainous and does not have hard soils, each of which characteristics makes provisioning of loop plant less expensive. Id. Areas of the country, which SBC cites (with favor, it appears) as having *high* UNE-L rates, SBC Ex. 2.0 at 6, Chart 1, are states like Montana, Wyoming and West Virginia. Id. These states, it scarcely needs to be said, are sparsely populated and are characterized by difficult terrain, which increases the cost of provisioning loop plant. Staff Ex. 2.0 at 8. States that are comparable to Illinois in terms of population and terrain, such as Indiana, Ohio, New Jersey and Michigan, have UNE-L rates that are similar to – indeed, according to SBC's evidence, with the exception of Michigan, *lower* than – those SBC charges in Illinois. SBC Ex. 2.0 at 6, Chart 1. Having engaged in this un-illuminating exercise, SBC next asserts that "low prices established by one state

commission are touted by CLECS to other state commissions as a benchmark", SBC Ex. 2.1 at 75, completely ignoring the fact that *high* prices established by one state commission are similarly touted by ***ILECs*** to other state commissions as a benchmark, as SBC itself is doing here. Id. at 76; *see also* SBC Ex. 2.0 at 6. In other words, it would be charitable to describe this exercise as disingenuous, and would be proper to ignore it.

SBC's attempt to justify its UNE rate proposal by comparing its rates to those other ILECs charge is essentially a pointless, irrelevant exercise, and one that the Commission should reject. UNE rates charged by different ILECs are not inherently comparable for the same reasons that retail rates are not comparable: the fact that the cost of serving customers in one state can – and indeed might reasonably be expected to – vary considerably from the cost of serving customers in other states. Staff Ex. 22.0 at 3. The Staff recommends that the Commission disregard SBC's attempt to justify its proposed UNE-L rate increase by comparing its current rates to those prevailing in other states. Id. Instead, the Commission should set UNE-L rates precisely as it has done in the past: by determining SBC's forward-looking costs for providing UNE-L in a manner consistent with forward looking costing principles. Id.

Historical versus Forward Looking Benchmarking

SBC also attempts to justify its proposed UNE-L rates by maintaining current UNE-L rates are generating negative cash flows, to the tune of $12.73 per month. SBC Ex. 2.0 at 11. SBC further contends that other analysts support this finding, concluding that SBC is losing $13.28 per line. SBC Ex. 2.0 at 19-22.

These assertions, however, are based on an analysis of historical (embedded) data. Staff Ex. 2.0 at 10-11. The Commission should not judge the appropriateness of proposed UNE-L rates by comparing these rates to SBC's historical costs. According to the FCC, UNE rates should be TELRIC based and reflective of forward looking costs for an efficient firm rather than backward looking and reflective of costs for a former rate of return regulated monopolist. Staff Ex. 2.0 at 9. In addition, SBC's expected productivity growth (as set in its price cap formula) combined with generally expected inflations rates provide strong a priori reasons for believing SBCI's forward looking costs will be lower than historical costs. Staff Ex. 2.0 at 10.

Finally, because the telecommunications industry is capital intensive and has low operating costs, productivity growth in telecommunications is achieved by important technological breakthroughs. Staff Ex. 22.0 at 6-8. These breakthroughs are typically used to service growth in demand rather than service existing demand. Id. As a result, average costs for a telecommunications firm often reflect the costs of many outdated inefficient technologies. Id. Under these circumstances it is quite possible for a firm to have historical costs that are substantially higher than its forward-looking costs. Id.

III. UNE Loop Recurring Cost Studies

A. Compliance With TELRIC-Generally (Including SBC Illinois Loop Cost Analysis Tool)

1. Overview of LoopCAT

LoopCAT estimates the direct costs associated with unbundled loops. Staff Ex. 3.0 (Lazare Direct), p. 12. LoopCAT "divides loop costs into five components: (1) premises termination (termination and connection of telephone cables to wiring in the

home or business), (2) distribution (cabling in a local serving area), (3) the feeder-distribution interface (a large cabinet that provides cross-connection capabilities between distribution cable pairs and feeder cable pairs), (4) feeder (large cable systems that originate at SBCI central offices and connect to smaller distribution cables at the feeder-distribution interface, including fiber cabling and Digital Loop Carrier (DLC) systems), and (5) the main distribution frame (equipment in the SBC central office where loop cables are terminated)." SBCI Ex. 4.0, Schedule JRS-3, p. 3; Staff Ex. 3 at 12. The LoopCAT study estimates the direct costs associated with unbundled loops. An adder for shared and common costs is then applied to these LoopCAT costs to determine the recurring unbundled UNE loop costs. Staff Ex. 3 (Lazare Direct) at 12.

2. Issues With the LoopCAT Model

One of the general issues with LoopCAT is that, in several respects, it simply adopts SBC Illinois existing network rather than attempt to "model" an efficient network. For example, LoopCAT bases its calculation of cable costs on the assumption of no changes to existing cable lengths and sizes. Staff Ex. 3 (Lazare Direct) at 13. This, as with most other issues with LoopCAT, focuses on the inputs to the model.

Although Staff generally found LoopCAT easy to use and manipulate, there was one "modeling" issue that Staff identified. Specifically, LoopCAT cannot be easily altered to modify the crossover point used to determine the loop design. See footnote 24, Section III.C.2 below. Although this issue was not significant enough to call into question the overall use of LoopCAT in this proceeding, this issue should be remedied if and to the extent that SBCI utilizes LoopCAT in future proceedings. Although Staff addressed this concern in the context of the specific issues involved, it is Staff's general

recommendation that SBCI be ordered to make reasonable efforts to remedy this shortcoming before making any further filings utilizing LoopCAT.

3. LoopCAT's Compliance With TELRIC

SBCI's LoopCAT Model relies to a large degree on SBCI's actual historical data and embedded costs to develop "forward looking" loop costs. *See* Staff Ex. 3.0 (Lazare Direct) at 6-7, 13. Although this historical data was not used to directly develop embedded costs, the extensive use of historical embedded costs to develop "forward looking" costs operates to create a forwarding looking network that replicates the inefficiencies in SBCI's actual network. For example, LoopCAT makes no attempt to model a most efficient layout of feeder and distribution cables. Instead, LoopCAT simply utilizes SBCI's actual cable placements to develop costs based on actual cable lengths and sizes. Staff Ex. 3 (Lazare Direct) at 13-15.

B. Major Inputs To Cost Studies

1. Fill Factors

This proceeding presents a much needed opportunity for the Commission to review and reconsider the appropriate fill factor concept and values to use in setting UNE rates for SBCI. The parties and Staff have proposed various fill factor concepts. Whereas SBCI proposes to incorporate its actual fills (the fills experienced in SBCI's actual network) into its LoopCAT study, Joint CLECs propose use of usable capacity fills (maximum physical capacity) or target fills (the fill at which it would be more efficient for a carrier to supplement a component of its network rather than allow increased utilization). As explained in more detail below, these proposals tend to be at opposite

ends of the spectrum and are inappropriate (or at least not the best choice of methodology) for developing TELRIC costs. Staff, on the other hand, proposes that the Commission adopt "forward looking actual fill" -- the fill that an efficient, forward looking network would achieve on average over the life of the element in question – as the most appropriate fill concept to set fill factors. As explained below, although forward looking actual fill is the most appropriate fill concept, the information to calculate fill values under that methodology is not available in this proceeding. Thus, Staff proposes use of a proxy to establish the forward looking actual fill values. The specific proxy that Staff proposes to use is SBCI's actual fills adjusted to remove excess capacity resulting from *ex post* inefficiency reflected in SBCI's actual network capacity. Joint CLECs' counter proposal to double Staff's proposed adjustment is inappropriate because it fails to take into consideration the large degree fixed and sunk costs associated with loop plant.

a) Background

Although "fill rates" (sometimes simply referred to as "fills") and "fill factors" are commonly used terms in the telecommunications industry, they have different meanings and have different uses. A fill rate (or utilization rate)[5] is a measure of the capacity of a network component that was (past), is (present), or will be (future) utilized, calculated by dividing the utilized capacity by the total available capacity. Staff Ex. 17 (Liu Rebuttal) at 1-2; Staff Ex. 10 (Green Direct) at 6. For example, a 100 pair cable with 50 working pairs would have a 50% fill (50 / 100). A fill rate can be specified for the network as a whole, for less aggregated portions of the network (e.g., by subdivision, segment, or

[5] In this brief, the terms fill and utilization are used interchangeably.

route), or for individual pieces of equipment. The fill rate of different network elements generally takes on different values. Staff Ex. 17 (Liu Rebuttal to CLECs) at 6. For example, switching network element actual fill and feeder plant actual fill generally take on higher values than distribution plant actual fill. *Id*.

A fill factor, on the other hand, is a term designed for regulatory purposes. It is the fill (or utilization) rate that is assumed or used in cost models or studies (such as TELRIC and LRSIC) to develop rates (such as UNE rates). That is, a fill factor is a particular fill (or utilization) rate that is being used for costing purposes. As discussed below, use of fill factors assures full recovery of the total investment costs developed for each element. The fills used in cost studies (*i.e.*, fill factors) are generally fills or utilization rates measured at the network level (*i.e.*, the percentage of the network capacity that is being or would be utilized associated with the relevant fill concept). Staff Ex. 17 (Liu Rebuttal to CLECs) at 6-7. The "network level" does not necessarily refer to the carrier's entire service area. For example, SBCI's UNE rates are generated based on Zones (A – urban, B – suburban, and C - rural) and the network level fills generally refer to the fills measured or applied to the SBC service area in Zone A, B or C. *Id*. at 7.

For network maintenance purposes, however, network engineers largely monitor fills or utilization rates at the subdivision level (*i.e.*, at a level less aggregated than the entire network). Staff Ex. 17 (Liu Rebuttal to CLECs) at 7. Engineering decisions relating to plant relief (*i.e.*, adding plant and capacity) are made largely on a subdivision-by-subdivision basis (e.g., a service area or distribution area, or even a sub-area within distribution area, or a feeder route). *Id*. at 7. The actual utilization rates at the network

level are generally not the best indicators as to whether a particular subdivision needs *plant relief* because a network level fill represents the weighted average of subdivision fills. *Id*. A 50% actual utilization rate at the network level, for example, may be the result of a 70% actual utilization rate at one subdivision and a 30% actual utilization rate at another subdivision. *Id*. Assuming for the sake of argument a fill-at-relief of 65%, the network level fill does not indicate the need for any *plant relief*, whereas the subdivision with a utilization rate of 70% is in need of plant relief. Therefore, fills at less aggregated (or more disaggregated) levels than the entire network are generally more relevant to make network engineering decisions regarding adding plant and capacity, while fill rates measured at the *network* level are more relevant for costing purposes. *Id*. at 7-8.

As fills essentially represent spare or unused capacity, it is necessary to understand the factors affecting those concepts. Loop spare capacity (like spare capacity for other network elements) exists in a carrier's network because the carrier, for purposes of accommodating future demand growth, normally places loop facilities in excess of what the carrier *immediately* needs to serve its customers. Staff Ex. 17 (Liu Rebuttal to CLECs) at 8. The primary costs of loop deployment are the fixed and sunk costs associated with physically laying cable (e.g., digging up the streets and trenching for placement of cable); and the total costs of cable placement (metallic or non-metallic) vary little with the cable size. Staff Ex. 17 (Liu Rebuttal to CLECs) at 8. Carriers thus normally place more copper and fiber facilities than they *immediately need* to avoid the future high duplicate costs to retrench the same location should demand for additional loop facilities occur. *Id*. at 8-9. Accordingly, the existence of spare capacity is the

logical result of a carrier's long run optimal investment strategy in a growing market. *Id*. at 9.

In short, spare capacity is mainly driven by: (1) the fixed and sunk costs associated with loop deployment and (2) the expectation of demand growth. Staff Ex. 17 (Liu Rebuttal to CLECs) at 9. If the demand in a particular serving area were expected to stay the same over time, then there would be no need to build extra capacity for purpose of accommodating possible future demand growth. *Id*. The network then should be designed or engineered at a capacity level that is consistent with target fill (*i.e*., the utilization rate above which it is more cost effective to add plant and capacity than increase the utilization of existing plant). *Id*. On the other hand, if there were no fixed and sunk costs associated with loop deployment, then there would no need to engineer the *extra* loop facilities to accommodate future demand growth, and the carrier, instead, would only need to place loop facilities that it immediately needs to serve its customers. The carrier could simply add loop facilities as additional demand arises. Staff Ex. 17 (Liu Rebuttal to CLECs) at 9-10.

With respect to loop plant, it is not that case that there is no demand growth or no fixed and sunk costs. Staff Ex. 17 (Liu Rebuttal to CLECs) at 10. Therefore, in a growing market, a carrier must engineer more capacity than it immediately needs to serve customers for purpose of accommodating future demand growth. *Id*. The two prime factors in determining how much spare capacity a carrier should build into its network are expected demand growth and the amount of fixed and sunk costs for the particular network element. Staff Ex. 17 (Liu Rebuttal to CLECs) at 10-11. All else equal, a carrier would, for example, engineer more spare capacity in an area that

experiences 20% demand growth than in an area that experiences 10% demand growth. *Id*. Similarly, the higher the fixed and sunk costs, the less frequently would the carrier wish to add capacity (plant relief); and – assuming all else equal -- this would be accomplished by building or engineering more capacity at the time of deployment (or plant reinforcement). *Id*.

Fixed fixed and sunk costs explain, to a great extent, why a carrier engineers different amounts of spare capacity for different network elements. Staff Ex. 17 (Liu Rebuttal to CLECs) at 11. For example, the spare capacity built into circuit equipment or switching equipment is much lower than the spare capacity built into distribution plant because the fixed and sunk costs associated with the deployment of switching or circuit equipment are generally much lower than the fixed and sunk costs associated with the deployment of distribution plant. *Id*.

b) TELRIC Standards/Principles

The FCC has provided the following guidelines regarding the appropriate choice of fills under a TELRIC methodology:

> Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing the total cost associated with the element by a *reasonable projection of the actual total usage* of the element.

First Report and Order at para. 682. Use of fill factors is required because an efficient, forward looking network will include some level of spare capacity for maintenance, testing and administrative purposes and to meet future demand. The spare capacity of an efficient, forward looking network imposes legitimate investment costs but does not

generate revenue for the period of time it is spare unused capacity. Thus, fill factors allow full recovery of a carrier's total investment costs by fully allocating those costs based on the projected actual usage of the element or component. *See* Staff Ex. 17 (Liu Rebuttal to CLECs) at 11-12.

In ICC Docket Nos. 96-0486 / 96-0569 (consol.) (the "TELRIC Proceeding") the Commission previously considered and developed fill factors for SBCI (then Ameritech Illinois). ATT/MCI there proposed using usable capacity fill with values as established by this Commission for Ameritech's LRSIC study. Staff in the TELRIC Proceeding agreed with Ameritech on the fill concept to be used – "target fill" --- but differed with Ameritech as to the appropriate values "target" fill should take. TELRIC Order at 32-35. The Commission adopted Staff's proposal – *i.e.*, the target fill concept with higher fill values. TELRIC Order at 29-35. Because the Commission was presented with and considered only two fill concepts -- target fill and usable capacity fill – its decision was necessarily based on a determination that target fill was a more reasonable or appropriate fill-factor-proposal than usable capacity fill (and did not determine that target fill must be used in future rate proceedings). Specifically, the Commission found as follows:

> We will adopt "target" fill factors as suggested by [Ameritech witness] Mr. Palmer, because we agree with him that TELRIC-based prices are reasonably based on the "optimal usage level above which it is more cost effective to add plant and capacity rather than increase the utilization of the existing plant." We are not persuaded that AT&T's and MCI's preference for the LRSIC standard of usable capacity adequately reflects this important efficiency factor. In addition the difference between usable capacity and target capacity provides capacity to meet growth. When the target is reached more capacity needs to be added.
>
> * * *

> We will use the target fills that Staff proposed. We note that Staff reviewed the same data relied upon by Ameritech Illinois to develop the targets. Furthermore, Staff used the same standard that Mr. Palmer proposed which we quoted above. Staff's analysis was essentially unrebutted. We believe that the change in methodology from usable capacity to target capacity will take into account the emerging unbundled environment appropriately and adequately.
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> * * *
>
> We are not persuaded that an additional proceeding to consider methodologies for determining projections of actual use would be beneficial. The "projections of actual use" approach was clearly identified in the FCC's Order in early August 1996, and neither Ameritech Illinois, ATT/MCI, Staff nor any other party chose to develop a fill factor proposal based on that measure. We are extremely concerned about numerous rounds of litigation regarding the same subject matter. If local exchange competition is to develop, potential competitors require a stable pricing environment within which to develop business plans. That will not be possible if we are relitigating significant assumptions underlying prices.

TELRIC Order at 33-34.

Thus, although the Commission found that target fill was a more appropriate fill-factor-proposal than usable capacity fill, the Commission also determined that neither of these concepts was based on or reflected the FCC's "projection of actual total use" approach for setting UNE rates set forth in the First Report and Order. The Commission, however, was disinclined at that time to open an "additional proceeding to consider *methodologies for determining projections of actual total use*" out of concerns that rounds of litigation would create an unstable and uncertain pricing environment, which is detrimental to the development of competition. TELRIC Order at 34. Thus, the instant proceeding presents a much-needed opportunity for parties and the Commission to consider to methodologies for determining fill factors that reflect the FCC's "projections of the actual total usage" approach expressed in the Local Competition Order.

c) Analysis of Fill Factor Methodologies

As noted above, there have been various fill concepts that have been introduced and discussed by different parties in this docket and in the TELRIC Proceeding. These concepts include SBCI's actual fill proposal, Joint CLECs' usable capacity fill and target fill proposals, and Staff's forward looking actual fill proposal. Each conceptual framework (or fill concept) is built on a different rationale. Target fill, for example, reflects (or was intended to reflect) the particular fill (or utilization) rate above which it is more cost effective to add plant and capacity rather than increase utilization of the existing plant. See Staff Ex. 17 (Liu Rebuttal to CLECs) at 14. As will be seen from a review of the rationales behind each fill rate concept, the appropriate choice of fill concept (or framework) to develop fill factors for TELRIC studies is Staff's proposed forward looking actual fill proposal.

(1) Actual Fill

Actual fill is the network utilization rate actually achieved at a given point in time, and it generally varies over time. More specifically, it is the percentage of network capacity that is being utilized *at the time of measurement*. Actual fill is normally below usable capacity fill and target fill (which are described below).

SBC proposes to use the actual fills or actual utilization rates as the fill factors for purposes of TELRIC studies, which is a reversal of its position in the TELRIC Proceeding. Staff Ex. 17 (Liu Rebuttal to CLECs) at 19. Staff agrees with Joint CLECs that SBC's existing network may not reflect an efficient, forward-looking capacity. *Id*. at 30-31. It is likely that the total network capacity (network size) in SBC's existing

network may not be the same as that of an efficient, forward-looking network. *Id*.; see also Staff Ex. 10 (Green), pp. 4-15, 16-18; Staff Ex. 32 (Green), pp. 1-11; Staff Ex. 2 (Staranczak Direct), pp. 14-22; Staff Ex. 22 (Staranczak Rebuttal to SBC), pp. 9-17; Staff Ex. 22 (Staranczak Rebuttal to SBC), pp. 30, 39-40; Staff Ex. 25 (Liu Rebuttal to SBC), pp. 1-34.

One reason that SBCI's existing network may not reflect an efficient, forward looking capacity level is if expected demand growth did not materialize. For example, when a telecommunications network is designed or built, a certain amount of spare capacity is engineered to accommodate future growth in demand. However, if the expected future demand growth does not materialize, the network has more capacity than it would have, had the expected demand growth materialized, and has more spare capacity than it would have if it had engineered the network based on the best information available today (instead of at the time of initial network deployment). Population depletion is another cause of "*redundant*" network capacity. See Staff Ex. 17 (Liu Rebuttal to CLECs) at 30-31. The total network capacity used to develop TELRIC fill rates should be consistent with the total network capacity of a forward-looking network and thus should not include these "redundant" capacities. *Id*.

(2) Usable Capacity Fill

Usable capacity fill is defined by Illinois Cost of Service Rules as the maximum physical capacity of the equipment or resource less any capacity required for maintenance, testing, or administrative purposes. 83 Ill. Admin. Code §791.20(n). For a telecommunications network to remain functional, some network capacity is set aside for Maintenance, Testing and Administrative ("MTA") purposes and thus does not

provide or carry telecommunications services to end-users. The capacity that can be used to provide telecommunications services to end-users -- *i.e.*, the capacity that is not set aside for maintenance, testing or administrative purposes – is the usable capacity as defined by the Illinois Cost of Service Rule. When measured as a percentage of the network capacity, this usable capacity is called the usable capacity fill.

Joint CLECs make the same proposal that they advocated in the TELRIC Proceeding. That is, they continue to maintain that usable capacity fill, which is being used in SBC LRSIC study, is the appropriate fill for purposes of a TELRIC study. Staff Ex. 17 (Liu Rebuttal to CLECs) at 19-20. As noted above in reviewing the TELRIC Order, the Commission has previously rejected the use of usable capacity fill as the appropriate fill factor. TELRIC Order at 33-34. In Staff's view, nothing has changed that would require or call for reconsideration or reversal of the Commission's earlier determination.

Joint CLEC witnesses Michael Starkey and Warren Fischer note that SBCI is using or required by the Commission's Administrative Rules to use usable capacity fill in its LRSIC studies. Joint CLEC Ex. 1.0 at 169-220. This is not an appropriate basis for use of usable capacity fill in this proceeding. Whereas UNE prices are subject to the FCC's TELRIC methodology, local retail rates are not Thus, the Commission should develop fills that are consistent with the FCC's TELRIC methodology, and should the Commission decide to visit the consistency issues regarding the fill factors used in TELRIC and LRSIC studies, make the appropriate adjustment to LRSIC fill factors to be in line with TELRIC fill factors. See Staff Ex. 17 (Liu Rebuttal to CLECs) at 20-22. To

develop TELRIC fills based on the LRSIC usable capacity fill standard is simply begs of the question of whether that standard is consistent with TELRIC. Therefore, the task in this proceeding is to develop a fill proposal that is consistent with TELRIC. Like the Commission in the TELRIC Order, Staff's "cannot reconcile the FCC Order with the cost of service rule." Staff Ex. 17 (Liu Rebuttal to CLECs) at 24.

Messrs. Starkey and Fischer attempt to demonstrate that that usable capacity fill is consistent with the FCC's "reasonable projection of the total actual usage" approach. Joint CLEC Ex. 1.0 at 196-197. According to Messrs. Starkey and Fischer:

> SBC's redesigned forward-looking network will include only the latest technology capable of being deployed *very modularly*, and because SBC will size its network based upon *a known quantity of demand* (i.e., *the projection of its total demand*), *the only constraints that keep SBC from building its forward-looking network consistent with nearly perfect utilization [100%] are the maintenance, administrative and testing impacts that separate "usable capacity" from "total capacity" in the real world (i.e., 100% usage throughout the network)*. As thus, the use of "usable capacity" fill factors, as required by the Commission's LRSIC rules and used by SBC in its retail cost studies, also represent the most reasonable interpretation of the FCC's fill factor requirements for TELRIC studies.

Joint CLEC Ex. 1.0 at 197 (emphasis added). Messrs. Starkey and Fischer base their analysis on three critical assumptions: (1) the forward-looking network is *very modular*, (2) that SBCI's network can be sized based on a known quantity of demand, and (3) that a cost-effective fill is achieved at usable capacity fill (the fill used in SBC LRSIC study). As well be demonstrated below, these assumptions are seriously flawed.

First, the assertion that SBCI can deploy a very modular network is ill conceived and inapplicable to the issues at hand. Staff Ex. 17 (Liu Rebuttal to CLECs) at 26-27. As long as there are significant fixed and sunk costs associated with network deployment and as long as there is anticipated future demand growth, the forward-looking (or any efficiently designed) network will have spare capacity built in at the time

of deployment. Regardless what Messrs. Starkey and Fischer might mean by a very modular network, it does not change the fact that there are significant fixed and sunk costs associated with network deployment (in particular, loop deployment). *Id*. In fact, the significant fixed and sunk costs associated with loop deployment are the major reason why the FCC made a finding of impairment for various types of loops in its *Triennial Review Order*:

> The costs of local loops serving the mass market are largely fixed and sunk. By fixed we mean that these costs are largely insensitive to the number of customers being served. Much of the cost applies whether a carrier serves a single residential customer or ten thousand residential customers: that carrier must secure rights-of-way, dig trenches or place poles, and run wire underground or along poles. Such deployment costs are also sunk. That is, local loop facilities are not fungible because they cannot be used for any other purpose if the investment fails. If a new entrant overbuilds to serve a mass market customer and loses that customer to another carrier, the new entrant cannot economically redeploy that loop to another location. Its investment might be lost unless it could find a purchaser for its redundant loops. This is true regardless of whether the new entrant was providing narrowband or broadband service, or both. A carrier will not deploy mass market loops unless it knows in advance that it will have customers that will generate sufficient revenues to allow it to recover its sunk loop investment. This certainty could most easily be achieved through long-term service contracts and a large, guaranteed customer base. In contrast to the enterprise market, however, long-term contracts are not commonplace in the mass market for either the narrowband or the broadband services and we have no information in our record to indicate that consumers ordinarily would accept such terms. As new entrants, competitive LECs do not enjoy a large guaranteed subscriber base that would provide a predictable source of funding to offset their local loop deployment costs. For these reasons, we find that the costs of self-provisioning mass market loop facilities are demonstrably greater than those faced universally by new entrants in other industries.

Triennial Review Order at para. 237 (footnotes omitted).

Second, although Messrs. Starkey and Fischer also do not explain what exactly they mean by "projection of its ***total*** demand", it appears that their "projection of demand" refers to the projection of demand for some particular point in the future

because Messrs. Starkey and Fischer attempt to size the forward-looking network based on this "known quantity of demand" (so as to maintain the network at the usable capacity fill). See Staff Ex. 17 (Liu Rebuttal to CLECs) at 27-29. The assertion that SBCI could size (or resize) the forward-looking network so as to maintain the network at the usable capacity fill requires one of the following two things have to be true: (1) that there are no fixed and sunk costs associated with network deployment, or (2) the future demand is expected to stay at a constant level (no growth in the future). *Id*. If the fixed and sunk costs associated with network deployment are not significant, there is no need to build in any spare capacity to accommodate future growth because a carrier can simply size the network based on demand or expected demand at any point in time. Alternatively, if the future demand is expected to stay at some constant level, then a carrier can simply size the forward-looking network based on this constant expected demand (*i.e*., "known quantity of demand") so as to maintain the network at the usable capacity fill. *Id*. Neither of these implicit assumptions is true. *Id*. Therefore, the forward-looking network cannot be maintained at the usable capacity fill because such fills allows no spare capacity to accommodate future demand growth.

Third, even if the above-described deficiencies did not exist, the forward looking network would not be sized at usable capacity fill. Rather, the network would be sized at some level below target fill. Staff Ex. 17 (Liu Rebuttal to CLECs) at 29-30. A target fill, by definition, is the particular fill rate above which network maintenance and administration costs would outweigh gains from the higher utilization. It does not appear logical to size a forward-looking network above this "*cost-effective*" fill level. *Id*.

In summary, Messrs. Starkey and Fischer's consistency analysis would make sense only if (1) target fill takes on the same values as Usable Capacity fill does, and either (2) there are no significant fixed and sunk costs associated with network deployment (loop deployment in particular given this proceeding mostly focuses on loop UNE rates) or (3) future demand is expected to stay at some constant level. However, neither (2) nor (3) is even close to being true (though one may argue whether target fill should or should not take on the same values as Usable Capacity fill does). In fact, there are significant fixed and sunk costs associated with loop deployment, which is the major reason why the FCC made a finding of impairment for loops (voice grade loop circuits in particular) in its Triennial Review Order. Therefore, Joint CLEC's arguments in support of its usable capacity fill proposal are seriously flawed because the underlying assumptions are false or unfounded.

In addition, usable capacity fill (nor target fill for that matter) are the TELRIC fill envisioned by the FCC because those fills would prevent a carrier from recovering its forward-looking investment costs. Staff Ex. 17 (Liu Rebuttal to CLECs) at 31-35. UNE rates are effectively calculated by dividing the "*monthly annualized unit*" investment costs by the applicable fill rates. *Id*. at 32. The "*monthly annualized unit*" investment costs in this context refer to the "annualized unit" investment costs divided by twelve (*i.e*., the number of months in a year). Similarly, the "annualized unit" investment costs refer to the total investment costs (such loop investment costs) annualized over the applicable depreciation life of the network and divided by the total network capacity. *Id*.

A usable-capacity-fill based UNE rate would not allow a carrier to recover its forward-looking network investment costs. Dr. Liu provided several charts based on the

following described hypothetical to demonstrate this effect. Staff Ex. 17 (Liu Rebuttal to CLECs) at 32-35. Under Dr. Liu's hypothetical, it was assumed that the network element was assumed to be loop facilities and that the carrier only wholesales its network element – *i.e.*, it can only recover its loop facilities costs through wholesale of unbundled loops at UNE rates. *Id*. It was further assumed that usable capacity fill was 75%. Because usable capacity fill, by definition, is the maximum physical capacity less capacity required for maintenance, testing and administrative purposes, an efficient, forward looking fill never reaches above the 75% usable capacity fill. *Id*. at 33. It was further assumed that the actual network fill reaches the usable capacity fill (*i.e.*, 75%) at the end of the network plant's life span (i.e., forward-looking depreciation life) assumed to be thirteen (13) years. *Id*.

Chart I shows a forward-looking network capacity (1,000 loop circuits), the usable capacity (750 loop circuits) and actual demand in each year. *Id*. at 34.

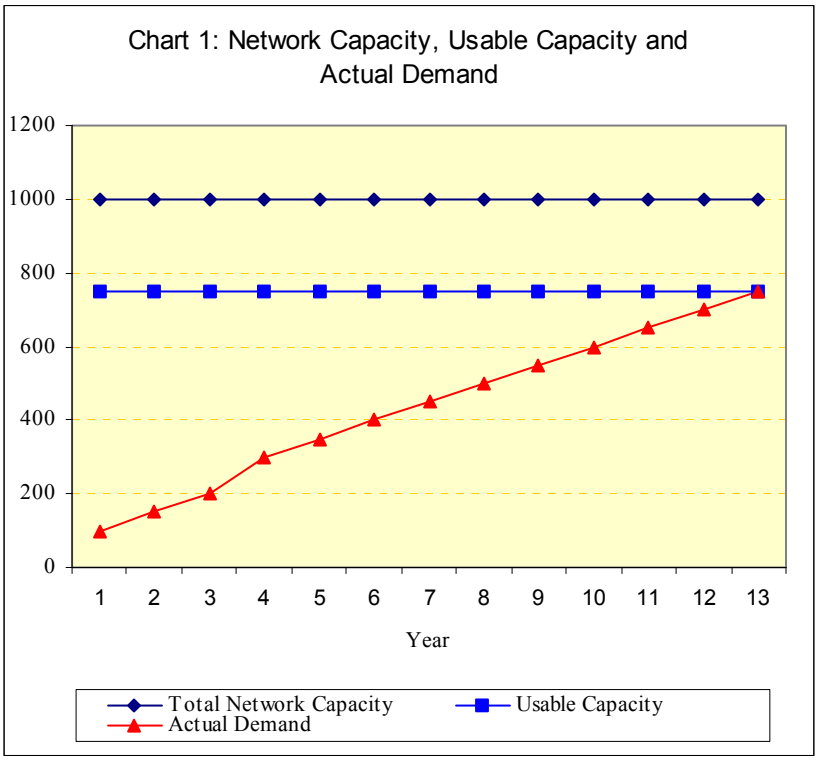
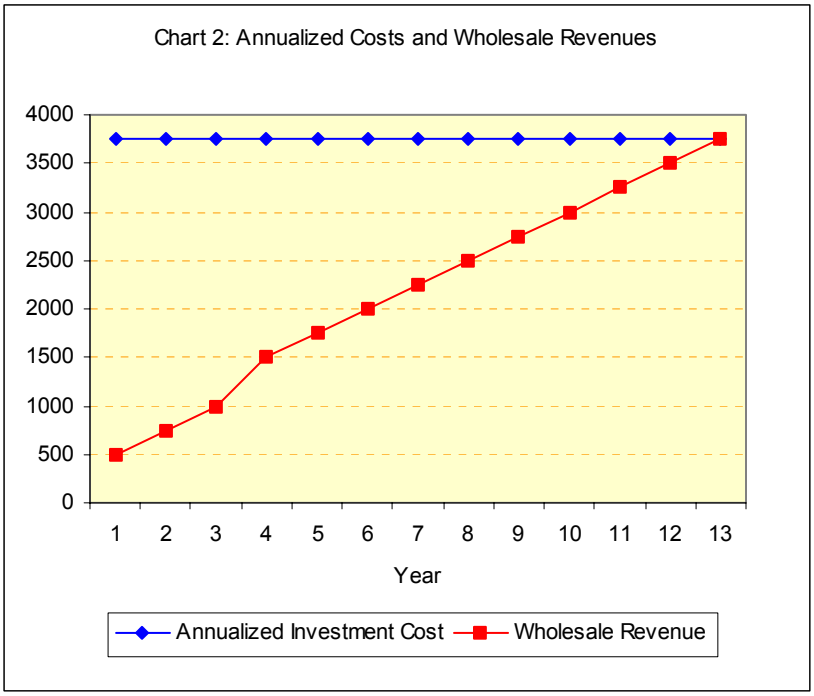


Chart II shows the "annualized total" loop investment costs ($3,750) and the wholesale revenues associated with the usable-capacity-fill based UNE rates over the lifespan of the loop plant. *Id*. at 35.



The actual wholesale revenue curve touches the "annualized total" investment cost line at year thirteen (*i.e*., at the end of the loop plant life). In Dr. Liu's example, demand grows over the entire life span of loop plant and the actual wholesale revenues are below the "annualized total" investment costs in every year prior to the end of the loop plant's life span. Thus the total cost recovered (the area under the wholesale revenue curve in Chart II) would be substantially below the total investment cost of the network (the area under the annualized total investment costs). *Id*. This example

illustrates the key point – *i.e.*, usable-capacity-fill based UNE pricing would not allow a carrier to recover its forward-looking costs – and this conclusion holds as long as there is (expected) growth in future demand and there are significant fixed and sunk costs associated with loop deployment (or more generally network deployment). *Id*.

(3) Target Fill

Joint CLECs witnesses Messrs. Starkey and Fischer advocate target fills in the alternative and contend that the Commission found target fills to be the most reasonable fill factors consistent with the FCC's TELRIC rules in the TELRIC Proceeding. *See* Joint CLEC Ex. 1.0 at 186. As noted above, the Commission found target fills to be the best proposal in that proceeding, but did not direct or require its use in further proceedings. Indeed, the Commission noted that target fill did not satisfy the FCC's forward looking actual fill approach. TELRIC Order at 34.

Target fill – the particular utilization rate above which it is more *cost effective* to add plant and capacity rather than allow increased utilization of the existing plant – is not the fill level achieved in an efficient, forward looking network. Staff Ex. 17 (Liu Rebuttal to CLECs) at 8. By definition, target fill is the fill level at which plant relief occurs for segments of the network. As such, it is not representative of the capacity that would be achieved in a efficient, forward looking network, nor is it representative of a projection of forward looking actual fil. Rather, it is the ceiling at which plant relief is provided as the efficiently engineered capacity (representative of a lower fill level) is exhausted.

(4) Forward Looking Actual Fill

(a) Methodology

Staff recommends that the Commission adopt forward looking actual fill -- the fill rate that a forward-looking network would actually achieve *on average* -- as the appropriate fill concept for purposes of a TELRIC study and setting UNE prices. Staff Ex. 17 (Liu Rebuttal to CLECs) at 35. Forward-looking fill" is based on the *forward-looking total network capacity* (*i.e*., capacity of a forward-looking network) and the *projection of the total actual demand*. *Id*. at 35. As UNE rates are intended to apply to the future purchases of UNEs, the relevant demand in developing fill factors should be the future demand. *Id*. at 36. Because the future demand is not known with a certainty, a projection of future demand must be made. *Id*. Dr. Liu explained that , in her opinion, the only logical interpretation of the 'total actual usage" in the FCC's "projection of the total actual usage" approach means the total accumulated demands or usage (sum-up of all future demands or usage). *Id*. at 36-37. Any other approach would tend to deny a carrier the opportunity to recover the costs of its forward-looking network (or costs of the portion of the forward looking network) that is used to provide UNEs through UNE rates (*i.e*., through UNE wholesale revenue). *Id*.

(b) Fills Should Be Based On The Demand Achieved Over Time

As discussed above, TELRIC requires that costs be established based on the costs of a hypothetical, forward looking carrier employing the most efficient technology, and prohibits the use of embedded costs. TELRIC neither prohibits nor restricts full recovery of the economic costs so determined, although it obviously prohibits

developing rates that would underrecover or overrecover those economic costs. Under these guidelines, the most appropriate -- if not required -- means to calculate TELRIC rates is to determine the fill that the hypothetical network would achieve on average over the future period used to determine the size (and resulting investment in) the hypothetical, forward looking network. If fills are calculated on the basis of the demand forecasted to occur at the start of the future period for which the forward looking network was built (and assuming that demand was expected to grow over time), then costs will be overrecovered if demand develops as forecasted. Conversely, if fills are calculated on the basis of the demand forecasted to occur at the end of the future period for which the forward looking network was built, then costs will be underrecovered if demand develops as forecasted.[6]

These concepts are illustrated by the following hypothetical. Assume that the forward looking network consists solely of a 100 pair copper cable with an annualized investment cost of $100 (or $1 per unit of capacity). Assume further that the economic life of the 100 pair cable is 2 years, that forecasted demand for all of year one is 50 units, and that forecasted demand for all of year 2 is 75 units. In this hypothetical, the total investment that should be recovered for the two year economic life of the 100 pair cable is $200 ($100 * 2), the forward looking actual fill for year one is 50% (50 ÷ 100), and the forward looking actual fill for year two is 75% (75 ÷ 100). If the fill at the beginning of the future period (50% for year 1) is used to set rates (i.e., the cost to provide one unit), then the rate or annual cost per unit will be $2:

[6] Although it may be efficient to engineer a network for which plant reinforcement is part of its design, this is not relevant -- as explained by Dr. Liu -- in the TELRIC context of a network built at once and built today. See Staff Ex. 25 (Liu Rebuttal to SBCI) at 13-15.

Annual Investment Per Unit	÷	Fill	=	Annual Costs Per Unit
$1	÷	.5	=	$2

At the $2 rate obtained using the fill for year 1, the carrier providing service would recover a total of $250 over the two year economic life of the 100 pair cable and overrecover its investment costs by $50 (or 20%):

	Annual Cost Per Unit	Annual Use (Demand)	Cost Recovered
Year 1	$2	50	$100
Year 2	$2	75	$150
Total	$2	125	$250

Similarly, if the fill at the end of the future period (75% for year 2) is used to set rates, then the annual cost per unit will be $1.333:

Annual Investment Per Unit	÷	Fill	=	Annual Costs Per Unit
$1	÷	.75	=	$1.333

At the $1.333 rate obtained using the fill for year 2, the carrier providing service would recover a total of $167 over the two year economic life of the 100 pair cable and underrecover its investment costs by $33 (or 16.5%):

	Annual Cost Per Unit	Annual Use (Demand)	Cost Recovered
Year 1	$1.333	50	$67
Year 2	$1.333	75	$100
Total	$1.333	125	$167

If the fill achieved on average over the two year future period (62.5% average fill)[7] is used to set rates, then the annual cost per unit will be $1.60:

Annual Investment Per Unit	÷	Fill	=	Annual Costs Per Unit
$1	÷	.625	=	$1.60

At the $1.60 rate obtained using the fill achieved on average over the two year future period, the carrier providing service would recover a total of $200 over the two year economic life of the 100 pair cable and neither overrecover nor underrecover its investment costs:

	Annual Cost Per Unit	Annual Use (Demand)	Cost Recovered
Year 1	$1.60	50	$80
Year 2	$1.60	75	$120
Total	$1.60	125	$200

[7] Calculated as follows: ((50+75)÷2) or (62.5) ÷ 100. This hypothetical uses the average fill for ease and simplicity of presentation. As applied to set actual rates, a weighted average should be used as described by Staff witness Dr. Liu. Staff Ex. 25 (Liu Rebuttal to SBCI) at 13-17.

(c) Staff's Proposed Proxy For Forward Looking Actual Fill

Dr. Liu fully explained how one would ideally determine the total accumulated demands or usage (sum-up of all future demands or usage) in her rebuttal testimony. Staff Ex. 25 (Liu Rebuttal to SBC) at 10-17. Although forward looking actual fill is the most appropriate fill concept, the information to calculate fill values under that methodology is not available in this proceeding. Staff Ex. 25 (Liu Rebuttal to SBC) at 17-18. Thus, Staff proposes use of a proxy to establish the forward looking actual fill values. *Id*. at 18-20. The specific proxy that Staff proposes to use is SBCI's actual fills adjusted to remove excess capacity resulting from *ex post* inefficiency reflected in SBCI's actual network capacity. *Id*. at 18. Dr. explained the characteristics of the FCC hypothetical network and how they differed for an actual network. *Id*. at 19-20. The main difference is that the FCC hypothetical network is built today and built at once, and thus would not be subject to the increases and decreases in fill that an actual network experiences. *Id*. Dr. Liu also explained that there is ex ante efficiency (or inefficiency) and ex post efficiency. Ex ante efficiency is efficiency measured against information available at the time of network deployment. *Id*. at 21. Ex post efficiency, on the other hand, is efficiency measured against actual occurrences of future events. In other words, it is efficiency measured by the extent to which actual occurrences of future events depart from forecasts of those events. *Id*. at 21-22.

Dr. Liu did not make adjustments to SBCI's actual fill for ex ante inefficiency. *Id*. at 23. Although a carrier may or may not have incentives to overbuild a network under rate of return regulation (i.e., to build an ex ante inefficient network), Dr. Liu did not make any such adjustment because economic models predicting such inefficient behavior are based on the assumption that allowed rate of return is greater than the

cost of capital, and there is no evidence in this proceeding, nor is Dr. Liu willing to assume, that the Commission set SBCI's rate of return greater than its cost of capital. *Id*. at 22-25. However, Dr. Liu found ex post inefficiency to be inevitable as actual events differ from forecasts. *Id*. at 25- 27. Moreover, the concept of ex post inefficiency is directly contrary to the efficiency, forward looking and no embedded requirements of TELRIC. *Id*. at 26-27. By definition, ex post inefficiency is both inefficient and backward looking (it is only determined by looking backwards at forecasts based on what were then future events). As a result, ex post inefficiency in SBCI's actual network is also an embedded inefficiency.

To calculate the specific amount of ex post inefficiency in SBCI's network is an unattainable if not impossible task. Staff Ex. 25 (Liu Rebuttal to SBC) at 27-28. Accordingly, Dr. Liu estimated necessary adjustments to different network components based on the vulnerability of those components to ex post inefficiency because of fixed and sunk costs and the length of the demand (short term, long term, or ultimate) that such components are intended to serve. *Id*. Taking these factors into consideration, Dr. Liu proposed a 15% adjustment to the total capacity of SBCI's distribution plan, and 7.5% capacity adjustments to SBCI's feeder plant and DIC capacity. *Id*. at 28-29. No adjustment was made to SBCI's network capacity for circuit equipment. *Id*. Dr. Liu also explained how she determined the multiplier to be applied to SBCI's fill factors to reflect these capacity adjustments. *Id*. at 29-30.

(d) Impact of Adjusting Fills

Joint CLECs have proposed more substantial adjustments of SBCI's actual capacity if Staff's forward looking actual fill proposal is adopted. In considering this

proposal, it is important to understand the effect of adjusting fill in general and in LoopCAT.

The FCC has indicated that "the per-unit costs associated with a particular element must be derived by dividing the total costs associated with the element by a reasonable projection of the actual total usage of the element." First Report and at para. 682. Using the previously discussed hypothetical of a 100 pair copper cable with a total annual investment cost of $100 and projected annual usage of 62.5 units, the annual per-unit costs of our hypothetical copper cable would be $1.60 ($100 ÷ 62.5). Mathematically, this is the same as dividing the annual investment per unit of capacity ($100 ÷ 100 = $1 annual investment per unit of capacity) by the 62.5% fill factor ($1 ÷ .625 = $1.60 per unit costs). Thus, under the TELRIC principles established by the FCC, the total capacity forming the basis for calculating total investment costs (or total investment per unit of capacity) should ideally be the same total capacity used to develop applicable fill factors. In the above-described hypothetical (which follows the FCC prescribed methodology), the element capacity used to derive total costs (i.e., the cable with a 100 pair capacity) is the same element capacity used to derive the applicable fill or projected actual usage (i.e., the projected actual use of the cable with a 100 pair capacity).

This relationship is very important in the context of developing TELRIC costs for loop plant consisting largely of fixed and sunk costs. Because of the significant fixed loop deployment costs, the unit investment associated with a larger network is smaller because fixed costs are apportioned over a larger number of loops. Capacity adjustment, while changing fill rate, also change unit investment. A downward

adjustment on capacity would result in an upward adjustment on fill factors and an upward adjustment on unit investment. Increasing the applicable fill rate (a result of reducing capacity) used to establish UNE rates generally produces a lower unit cost and UNE loop price. This effect is offset to some extent by a corresponding increase in the unit investment cost. The change in unit cost resulting from the increase in unit investment is less than (i.e., not proportional) to the decrease in unit cost resulting from the corresponding increase in the applicable fill rate.

These concepts can be illustrated using our hypothetical 100 pair cable, although we will now need two scenarios to demonstrate the effect of two fill rate and capacity assumptions as well as a third scenario where the investment costs are held constant but fills are adjusted.. In the first scenario ("45% Scenario") we will assume a 100 pair cable with a total annual investment of $100 (unit investment = $1) and a 45% utilization rate (45 ÷ 100). In the second scenario (90% Scenario) we will assume a 50 pair cable with a total annual investment of $90 (unit investment = $1.80) and a 90% utilization rate (45 ÷ 50). In the third scenario (Combined Scenario) the investment costs from the 45% Scenario will be used (100 pair cable with $100 annual investment costs – unit investment = $1) with the fill factor utilized in the 90% scenario (i.e., 90% fill factor). Note that in this hypothetical, the cable investment costs are largely fixed – producing only a 10% investment cost savings when reducing network capacity from 100 to 50.

Under the 45% Scenario ($100 annual investment for 100 pair cable with 45 units of projected actual usage), the annual cost per unit will be $2.22:

Annual Investment Per Unit	÷	Fill	=	Annual Costs Per Unit
$1	÷	.45	=	$2.22

Under the 90% Scenario ($90 annual investment for 50 pair cable with 45 units of projected actual usage), the annual cost per unit will be $2.00:

Annual Investment Per Unit	÷	Fill	=	Annual Costs Per Unit
$1.80	÷	.90	=	$2.00

Under the Combined Scenario ($100 annual investment for 100 pair cable with a 90% fill factor), the annual costs per unit will be $1.11:

Annual Investment Per Unit	÷	Fill	=	Annual Costs Per Unit
$1	÷	.90	=	$1.11

As can be seen (comparing 45% Scenario with 90% Scenario), the reduction in capacity by 50% increases the fill rate by 100% (from 45% to 90%). It also increases the unit investment, from $1 to $1.80. Overall, reducing network capacity by half (50% capacity adjustment), from 100 to 50, produces a 9.9% reduction in Annualized unit costs. However, if one omits the effects of capacity adjustment on unit investment (comparing 45% Scenarios and Combined Scenario), a 50% capacity adjustment would produce a 50% reduction in unit costs – i.e., proportional effect on unit cost. That is, if one inappropriately omits the effect of capacity adjustment on unit investment, the impact of a capacity adjustment on unit cost (through an increased fill rate) would overstate the true impact of the capacity adjustment on unit costs, resulting in understatement of unit costs. In the above hypothetical example, the understatement in unit cost is $0.89 or 44.5% [= (2.0-1.11)/2] (compare the unit costs in 90% Scenario and Combined Scenario).

LoopCAT, in its current form, does not have a built-in system to automatically channel through the effects of capacity adjustments on fill rates and unit investment. In

particular, it does not have a built-in system to automatically channel through the effect of capacity adjustment on unit investment. Staff, in implementing its capacity adjustment proxy approach, omits the effects of its capacity adjustments on unit investment for practical purposes. This specific manner of implementation results in a theoretical understatement of unit cost and UNE loop prices. For Staff's proposed capacity adjustments of 15% and 7.5%, however, the understatements in UNE loop prices are not unacceptably high — around $0.50 or less. However, the larger the upward adjustment to SBCI's actual fill factors (i.e., the greater the capacity reduction adjustment) the larger the resulting understatements of unit costs and UNE loop prices. Therefore, the Commission must exercise significant caution if it adopts Staff's capacity adjustment approach and decides to consider Joint CLECs' much larger proposed capacity adjustment. With greater percentages of capacity adjustment, the understatements in unit costs and in UNE loop prices might be significantly higher. As a result, Staff recommends that CLECs proposed capacity adjustments not be adopted.

2. Depreciation

The Commission should adopt depreciation rates that reflect the economically useful lives of equipment and plant. Staff Ex. 2.0 (Staranczak), at 23. Properly set depreciation rates will be competitively neutral, encourage efficient competition and ultimately be in the best interests of consumers. Staff Ex. 15 (Staranczak), at 5. Correctly set lives will also fairly balance the interests of SBCI with the interests of subscribers and CLECs. Staff Ex. 15.0 (Staranczak), at 5. The Commission can achieve all these objectives by approving the forward-looking lives developed by the

FCC and ordered by the Commission in ICC Docket 96-0486/0569. Staff Ex. 13.0 (Staranczak adopting Wagner), at 3.

Currently approved regulatory accounting lives fairly balance the interests of all parties. Staff Ex. 15 (Staranczak), at 5. In contrast, use of financial lives as proposed by SBCI unduly protects the interests of shareholders by enabling shareholders to recoup their capital outlays in the shortest period of time. However, higher depreciation charges associated with shorter lives results in a substantial increase in UNE rates for CLECs and ultimately the business and residence subscribers they serve. Use of financial lives minimizes investment risks for shareholders but maximizes rate risk (i.e., the risk of being overcharged) for subscribers. Staff Ex. 15 (Staranczak), at 3. As a result, financial reporting lives are inappropriate for the regulatory purpose of setting rates. Staff Ex. 15 (Staranczak), at 3. The FCC in the *Triennial Review Order* also found LEC arguments concerning accelerated asset lives unconvincing and consequently declined to mandate the use of financial reporting lives for the purpose of setting TELRIC based UNE rates[8]. Staff Ex. 15.0 (Staranczak), at 4.

The equipment lives set by the Commission in Docket 96-0486/059 continue to be appropriate because they reflect the rapid rate of technological change that has occurred in the past and is likely to occur in the future. Staff Ex. 2.0 (Staranczak), at 24. There is no evidence that advanced services will require massive retirement of copper loops, since the development of new technologies such as New Generation Digital Loop

[8] *In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of Local Competition Provisions of the Telecommunications Act of 1996, and Deployment of Wireline Service Offering Advanced Telecommunications Capability*, CC Docket Nos. 01-338, 96-98 & 98-147, Report and Order on Remand on Further Notice of Proposed Rulemaking, FCC 03-36 (rel. August 21, 2003) ("*Triennial Review Order*"). paragraph 688, *quoted* in Staff Ex. 15 (Staranczak), at 4.

Carrier means that advanced services can be provided to homes and business that are still served by copper cables. Id., at 27. These new technologies enable subscribers to use the low frequency portion of the copper loop for transmission of analog voice traffic, and the high frequency portion for high-speed transmission of digital traffic. Thus new technologies allow conversion of narrowband loops to broadband giving extended life to narrowband copper plant. Staff Ex. 22.0 (Staranczak), at 24.

There is no credible evidence that subscribers will need substantially more bandwidth than they use now. Staff Ex. 2 (Staranczak), at 26. Assertions, anecdotal evidence and selective quotes from experts that customers will need ever-increasing bandwidths are simply not concrete enough to justify a change in economic lives. Staff Ex. 22.0 (Staranczak), at 27. No party has presented solid analysis that consumers will want massive file downloads for interactive games or video on demand that would require very high-speed broadband. Id., at 27. More fundamentally it is inappropriate public policy to have ratepayers who don't subscriber to broadband, or who obtain broadband from cable companies to pay higher telephone rates just to make the local telephone companies better able to compete in the broadband market. Id., at 30.

Finally, there is no proof that competition will strand large quantities of equipment thereby significantly reducing the economic life of this equipment. Staff Ex. 2.0 (Staranczak), at 28. This is because over 75% of CLEC lines are resale and UNE-L or UNE-P lines, which typically do not strand ILEC loop investment since these lines are provisioned entirely through use of the ILEC's facilities. Staff Ex. 22.0 (Staranczak), at 21-22.

Moreover, there is no statistical evidence to support assertions that facilities based competition will increase substantially. Staff Ex. 22.0 (Staranczak), at 22. There are only about 6.3 million facilities based CLEC lines currently and the number of CLEC lines has not increased markedly since December of 2001. In fact, the number of CLEC lines that are not cable telephony lines has actually decreased since December 2000 as is evident in Table 2 below. Id., at 22.

Table 2

Narrow Band CLEC Facilities Based Lines by Carrier Type (millions)

Month	Year	CLEC Facilities Based	Coaxial Cable	Other Facilities Based
Dec	2000	5.2	1.1	4.1
June	2001	5.8	1.9	3.9
Dec	2001	6.1	2.2	3.9
June	2002	6.2	2.6	3.6
Dec	2002	6.4	3.0	3.4
June	2003	6.3	3.0	3.3
Source: FCC "Status of Local Competition" Tables 3 and 5, released Dec 2003.				

Table 2 also indicates that the rate of growth in cable telephony has slowed during every six-month period from June 2001 to the present. In the latest six-month period, there was very little growth in cable telephone at all. Staff Ex. 22.0

(Staranczak), at 19. Cable telephone has not made greater inroads because of possible compatibility and reliability problems. In particular quite a number of existing telephone sets are not compatible with cable telephony and consequently a customer who signs up with a cable company may have to purchase a new telephone set. In addition, cable telephony relies on phone batteries if electricity goes out. These batteries are only good for about eight hours, whereas regular telephones can operate virtually indefinitely when the power goes out. Finally, some dial around long-distance numbers (10-10-XXX) may not work with the cable telephony. Id., at 19.

There is also no plausible evidence that substantial numbers of wireline subscribers will rely solely on wireless anytime in the future. Staff Ex. 22.0 (Staranczak), at 23. Only about 2% of households rely on wireless solely today even though there are 128 million wireless subscribers nationwide currently and wireless has been available to customers for many years. Id., at 20. This is because wireless continues to be more expensive than wireline and lacks the quality and reliability of wireline. *Id*, at 21. As a result, wireless will continue to complement rather than displace wireline telephone service for the foreseeable future. Id.

To summarize, the Commission should approve the economic lives developed by the FCC and ordered by the Commission in ICC Docket 96-0486/0569. These forward looking lives reflect the rapid rate of technological change that has occurred in the past and can appropriately accommodate the new technologies that are yet to come. Finally, there is no credible evidence that facilities based competition will strand significant amounts of plant and thereby reduce its economic value.

3. Cost of Capital

a) Rate Of Return

(1) Overview

Cost of capital is an important input into the Annual Charge Factor. Staff recommends, and the evidence adduced in this proceeding supports, an 8.62% overall cost of capital, which reflects a 12.44% cost of common equity; a 4.99% cost of long-term debt; a 1.47% cost of short-term debt; and a capital structure consisting of 4.78% short-term debt, 44.22% long-term debt, and 51.00% common equity. *See, generally*, Staff Ex. 12.0, Schedule 12.1; *see also* Staff Ex. 31.0, 36.0.

Staff's proposal is far preferable to the alternatives presented by other parties. First, Staff presents a capital structure that reasonably balances debt and equity, and accurately reflects the capital structure of other industrial enterprises having reasonable levels of financial strength. SBCI, in contrast, proposes an unnecessarily expensive capital structure with a level of equity far in excess of that necessary to maintain a reasonable level of financial strength. Further, Staff's recommendation reflects a level of competitive risk that is consistent with the degreee of efficiency reflected in the other cost components of Staff's proposed UNE loop rates. Likewise, Staff's recommended cost of debt takes into account recent downward trends in interest rates, instead of speculating that interest rates will increase to levels experienced in 1999.

Two other parties submitted proposals regarding the appropriate cost of capital for SBCI's UNE loops. SBCI presented its own analysis of its capital structure and weighted average cost of capital ("WACC"). *See, generally*, SBCI Exhibits 12.0, 12.1, 12.2. AT&T / MCI likewise presented testimony on these issues. AT&T / MCI Joint Ex. 2, 3, 2.2, 2.3. The Citizens Utility Board, Attorney General, and Department of Defense

and Other Federal Executive Agencies each presented some evidence on this issue without making detailed recommendations. *See* CUB Ex. 1.0; AG Ex. 1.0; DOD Ex. 1.0. SBCI's proposal of a 12.19% overall cost of capital recommendation reflects a 13.0% cost of common equity, a 7.18% cost of long-term debt, and a capital structure consisting of 14.00% long-term debt and 86.00% common equity. SBCI Ex. 12.0 at 7. AT&T / MCI, in contrast, recommends a 7.54% overall cost of capital, reflecting a 9.46% cost of common equity; a 5.60% cost of long-term debt; a 2.84% cost of short-term debt; and a capital structure consisting of 22.35% short-term debt, 11.53% long-term debt, and 66.12% common equity. AT&T / MCI Joint Ex. 2.0 at 45.

Notwithstanding these recommendations, the Staff's proposal should be adopted, for the reasons set forth below.

(2) Cost Of Short-Term Debt

Staff recommends a cost of short-term debt of 1.47%. Staff Ex. 12.0, Schedule 12.1. SBCI did not include short-term debt in its capital structure recommendation and, consequently, did not present a cost of short-term debt estimate. SBCI Ex. 12.0 at 7. AT&T / MCI recommends a cost of short-term debt of 2.84%. AT&T / MCI Joint Ex. 2 at 45.

(a) Staff's Recommendation

SBCI obtains short-term debt through its parent, SBC, which issues short-term debt in the form of commercial paper. Staff Ex. 12.0 at 23. This being the case, Staff estimated SBCI's cost of short-term debt using an A2/P2 commercial paper rating to be consistent with its cost of equity estimate, which is based on a sample of companies whose ratings indicate an average commercial paper rating of A2/P2. Id. at 23-24. The

April 3, 2003 1.45% discount rate on thirty-day, A2/P2 non-financial commercial paper was then converted into an annual yield of 1.47%. Id. Thus, Staff reached its recommended cost of short-term debt of 1.47%. Id. at 23-24.

(b) AT&T / MCI's Recommendation

To estimate the cost of short-term debt, AT&T / MCI used the average of an estimate of SBCI's current 3-month interest rate and an estimate of SBCI's 3-month interest rate 10 years in the future. AT&T / MCI Joint Ex. 2 at 34. To calculate its estimate of SBCI's current 3-month rate, AT&T / MCI added a spread of 0.35% to the current 3-month Treasury bill rate of 1.09%, which produced an estimate of SBCI's current 3-month rate of 1.44%. Id. To calculate its estimate of SBCI's 3-month rate 10 years in the future, AT&T / MCI added the same 0.35% spread to a forecast of the 3-month Treasury bill rate 10 years in the future of 3.89%, which produced an estimate of SBCI's current 3-month rate of 4.24%. Id. AT&T / MCI applied the average of its 1.44% current 3-month rate estimate and its 4.24% 3-month rate estimate for 10 years in the future, or 2.84%, as its proposed cost of short-term debt. Id.

(3) Cost Of Long-Term Debt

Staff recommends a cost of long-term debt of 4.99%. Staff Ex. 12.0, Schedule 12.1. SBCI recommends a cost of long-term debt of 7.18%. SBCI Ex. 12.0 at 7. AT&T / MCI recommends a cost of long-term debt of 5.60%. AT&T / MCI Joint Ex. 2 at 45.

(a) Staff's Recommendation

The cost of issuing long-term debt depends in part on the term to maturity of the issuance. SBCI obtains all its external capital, including debt, from its parent company,

SBC. Staff Ex. 12.0 at 21. Thus, the maturity for SBCI debt effectively equals the maturity for its parent company's debt. Id. Therefore, to estimate SBCI's forward-looking cost of long-term debt, Staff first estimated the mix of original terms to maturity of SBC's outstanding debt by the original issue amount. Id. 30% of the principal amount of SBC's six most recent debt issues was issued as 5-year debt, 48% was issued as 10-year debt, and 22% was issued as 20- and 40-year debt. Id. Staff then added the published yield spreads between debt issued by A/A– rated industrial companies and U.S. Treasury securities to the corresponding current U.S. Treasury security yields to determine the cost of debt for each of those maturities. Id. at 21-22. Staff used industrial debt because Standard & Poor's ("S&P") now includes telecommunications companies in its industrials group. Id. at 22. Staff used an A/A– credit rating for consistency with its cost of equity estimate, which is based on a sample of companies with an average credit rating of A/A–. Id. The resulting forward-looking cost of long-term debt of 4.99% is based on 30% 5-year debt at 3.72%, 48% 10-year debt at 5.10%, and 22% 30-year debt at 6.48%. Id.

(b) SBCI's Recommendation

SBCI recommends a cost of long-term debt of 7.18%. SBCI Ex. 12.0 at 7. It calculated this by averaging the March 1999 yields for A and AA rated bonds, as reported by Moody's. Id.

(c) AT&T / MCI's Recommendation

To estimate the cost of long-term debt, AT&T / MCI applied the same general procedure it used to derive its cost of short-term debt estimate. AT&T / MCI Joint Ex. 2 at 34. Thus, presumably, AT&T / MCI used the average of an estimate of SBCI's

current 10-year interest rate and an estimate of SBCI's 10-year interest rate 10 years in the future to derive its 5.60% cost of long-term debt. Id.

(d) Response to SBCI's Criticisms

SBCI claims that Staff's proposed cost of debt is inappropriate for use in developing a TELRIC-based cost of capital, alleging that 10-year interest rates had risen, as of November and December of 2003, from the time of Staff's analysis submitted in its direct testimony in May 2003. SBCI Ex. 12.1 at 16-17. This assertion, however, bears no scrutiny and should be rejected.

Interest rates were, as of February 2004, very near the same levels they were at the time of Staff's initial analysis; if anything, interest rates have fallen slightly overall. Staff Ex. 31.0 at 16. 90-day Treasury bills have fallen from a 1.09% yield on April 3, 2003 to a 0.92% yield on February 3, 2004, 10-year Treasury bonds have risen slightly from a 3.93% yield on April 3, 2003 to a 4.13% yield on February 3, 2004, and long-term Treasury bonds have fallen very slightly from 5.08% yield on April 3, 2003 to 5.06% yield on February 3, 2004. Id. In addition, the interest rate on 25/30-year A-rated Industrial debt has fallen from 5.98% on March 20, 2003 to 5.73% on February 5, 2004. Id. at 16-17. Finally, the spread on 10-year A-rated Industrial bonds has fallen from about 110 basis points on April 7, 2003 to 85 basis points on February 17, 2004. Id. at 17. In other words, if there has been an increase in interest rates, SBCI has not shown its sustainability; if anything, rates currently appear to be trending *downward*, which argues strongly against SBCI's proposal.

SBCI further argues that the recent bond yields Staff cited do not support Staff's cost of debt. SBCI Ex. 12.2 at 19-20. The company inappropriately adds the yield

spread for 10-year bonds to the Treasury bond yield for 25+ year bonds to produce a 5.91% cost of debt, claiming that that single yield demonstrates Staff's 4.99% cost of debt to be insufficient. Id. The company claims that the January 2004 yield on A-rated industrial bonds also demonstrate that Staff's cost of debt is understated. Id.

Both of these assertions are spurious. In advancing these arguments, SBCI fails to consider the maturities of the yields cited. Staff Ex. 31.0 at 14-15. Recently, the yields on debt with shorter terms to maturity have been significantly *lower* than that for long-term debt. *See* Staff Ex. 12.0 at 22, Table 1. Thus, a company issuing a mixture of debt maturities will have a *lower* cost of debt than if it were to issue long-term debt only. Staff's debt mix is based firmly in fact and recent experience, including as it does a variety of maturities representing those used by SBCI itself in the recent past. Staff Ex. 12.0 at 21. Likewise, Staff's approach more closely reflects the average investment recovery time, or "maturity," for UNE assets; the weighted average maturity of the debt in Staff's cost of capital recommendation is 11.65 years, while the average maturity of the UNE assets, based on Staff's 5.12% depreciation rate, is approximately 9.77 years. Staff Ex. 31.0 at 15. In contrast, the debt in SBCI's cost of capital recommendation appears to reflect only issuances with terms to maturity of 20 years or more. Id.

(e) Criticisms of SBCI's Analysis

Despite its view that "the relevant cost of debt is what it would cost to raise new debt funds in the marketplace," SBCI Ex 12.0 at 20, SBCI based its cost of debt on bond yields from March of 1999. Id. This use of five-year-old interest rates to determine cost of cost of debt should be rejected.

On its face, it is virtually impossible to assert seriously that using five-year-old rates will obtain a forward-looking cost of debt. If five-year-old rates reflected forward-looking interest rates it would only be by coincidence. Indeed, interest rates have unquestionably fallen since March 1999, when the interest rates used by SBCI were in effect. Staff Ex. 12.0 at 36-37; Staff Ex. 31.0 at 16-17. SBCI's defense of its 7.18% cost of debt proposal ignores these facts and, instead, rests on speculation with regard to what interest rates will be five to ten years in the future. SBCI appears to suggest that interest rates have nowhere to go but up. However, that prediction has already been shown to be invalid, inasmuch as interest rates have actually *fallen* slightly since the time of Staff's analysis. No one can forecast when, or even if, interest rates will rise and remain consistently above the rates Staff recommends. Staff Ex. 31.0 at 17. Nevertheless, SBCI proposes a cost of long-term debt more than two percentage points higher than Staff's cost of debt recommendation, which is based on current rates, and reflects current market conditions. SBCI is seeking to charge a rate in excess of its *current* marginal cost on the speculation that its cost will *eventually* rise. The Commission should not base rates on speculation. Staff Ex. 31.0 at 17. Accordingly, SBCI's long-term debt recommendation should be rejected.

(4) Cost of Common Equity

Staff recommends a cost of equity of 12.44%. Staff Ex. 12.0 at 20. SBCI recommends a cost of equity of 13.00%. SBCI Ex. 12.0 at 7. AT&T / MCI recommends a cost of equity of 9.46%. AT&T / MCI Joint Ex. 2 at 45. Again, Staff's recommendation should be adopted, for the reasons set forth below.

(a) Staff's Recommendation

Staff estimated the cost of common equity for SBCI's UNE loops with discounted cash flow ("DCF") and risk premium models. Staff Ex. 12.0 at 3, *et seq*. The Commission has approved, in numerous regulatory proceedings, the use of these models for measuring the cost of equity. *See, e.g.*, *Order* at 68, Central Illinois Public Service Company d/b/a AmerenCIPS and Union Electric Company d/b/a AmerenUE: Petition for approval of delivery services implementation plan and delivery service tariffs, ICC Docket No. 99-0121, 1999 Ill. PUC Lexis 646 (August 25, 1999).

DCF and risk premium models cannot be applied directly to SBCI because its common stock is not market-traded; instead its parent company, SBC, issues stock. Staff Ex. 12.0 at 3. Therefore, Staff applied those models to a sample of diversified telecommunications companies ("Telecom Sample"). Id. at 3-4. The Telecom Sample comprises seven cash-dividend-paying, market-traded domestic companies classified within the communications services industry by Yahoo!Finance, that had either S&P or Moody's corporate credit ratings and either IBES or Zacks Investment Research ("Zacks") growth forecasts. Id. at 4.

DCF Analysis. Staff applied a constant-growth quarterly DCF model to derive an estimate of the cost of equity. Staff Ex. 12.0 at 5. In a DCF analysis, the cost of equity is the rate of return with which projected dividends must be discounted in order to produce a present value equal to the current stock price. Id. at 4-5. The DCF methodology requires a growth rate that reflects the expectations of investors. Staff measured the market-consensus expected growth rates with projections published by IBES and Zacks. Id. at 6. The growth rate estimates were combined with the closing stock prices and dividend data as of April 3, 2003. Id. at 7; *see also* Staff Schedule

12.4. Based on this growth, stock price, and dividend data, Staff's DCF estimate of the cost of common equity was 10.59% for the Telecom Sample. Staff Ex. 12.0 at 8; *see also* Staff Schedule 12.6.

Risk Premium Analysis. According to established financial theory, the required rate of return for a given security equals the risk-free rate of return plus a risk premium associated with that security. Staff Ex. 12.0 at 10. The risk premium methodology is consistent with the theory that investors are risk-averse. Id. Staff used a one-factor risk premium model, the capital asset pricing model ("CAPM"), to estimate the cost of common equity. Staff Ex.12.0 at 11. In the CAPM, the risk factor is market risk, which cannot be eliminated through portfolio diversification. Id.

The CAPM requires the estimation of three parameters: beta, the risk-free rate, and the required rate of return on the market. Staff Ex. 12.0 at 11. For beta,[9] Staff used Value Line's adjusted beta estimates and a regression analysis to estimate the beta of the Telecom Sample. Staff Ex. 12.0 at 17-18. The average Value Line adjusted beta estimate for the Telecom Sample was 0.98, while the regression analysis yielded a beta estimate of 1.03. Staff Exhibit 12.0 at 19.

For the risk-free rate of return, Staff considered two current estimates: the 1.11% yield on three-month U.S. Treasury bills and the 5.14% yield on thirty-year[10] U.S. Treasury bonds. Id. at 14. Both estimates were measured as of April 3, 2003. Id.

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[9] Beta is the measure of market risk for the security in question. Staff Ex. 12.0 at 11, 17.

[10] In October 2001, the U.S. Treasury suspended the issuance of 30-year U.S. Treasury bonds. The U.S. Treasury now publishes a Long-Term Average Rate, which represents the arithmetic average of the bid yields on all outstanding fixed-coupon securities with 25 years or more remaining to maturity. Additionally, the U.S. Treasury publishes a daily linear extrapolation factor that can be added to the Long-Term Average Rate to estimate a 30-year rate. *See* www.treas.gov/offices/domestic-finance/debt-management/interest-rate/ltcompositeindex.html.

Based on forecasts of long-term inflation and the real risk-free rate, Staff concluded that the long-term U.S. Treasury bond yield is currently the superior proxy for the long-term risk-free rate. Id. at 14-15.

Finally, for the expected rate of return on the market, Staff conducted a DCF analysis on the firms composing the S&P 500 Index. Id. at 16. That analysis estimated that the expected rate of return on the market equals 14.29%. Id. Inputting those three values into the CAPM, Staff calculated a cost of common equity estimate of 14.29% for the Telecom Sample. Id. at 19.

Recommendation. Based on its DCF and risk premium models, Staff estimated that the cost of common equity for its Telecom Sample ranges from 10.59% to 14.29%, with a midpoint of 12.44%. Staff Ex.12.0 at 20. A thorough cost of common equity analysis requires both the application of financial models and the analyst's informed judgment. Id. Thus, to determine the suitability of that cost of equity estimate for SBCI's UNE loop operations, Staff analyzed the average S&P credit ratings of the Telecom Sample to assess its relative risk level. Id. at 20-21, 26. The current average S&P credit rating for the Telecom Sample is A/A–. Id. A credit rating in the A range indicates a strong capacity to meet financial commitments. Id. Staff also analyzed its risk premium and DCF estimates relative to the concurrent 5.98% yield on less risky A-rated long-term debt. Id. at 26. Staff concluded that the required rate of return on common equity for SBCI's UNE loop operations equals 12.44%, which represents the average of its DCF and CAPM estimates for its Telecom Sample. Staff Ex. 12.0 at 20-21, 26.

(b) SBCI's Recommendation

SBCI presented two separate cost of equity analyses in this proceeding. The primary analysis, from which SBCI derived its 13.00% cost of equity recommendation, was performed in March of 1999 (the "1999 Analysis"). SBCI Ex. 12.0 at 6-7; SBCI Ex. 12.1 at 54. In that analysis, SBCI implemented DCF and risk premium analyses to estimate the cost of common equity for SBCI's UNE loop operations. Id. The 1999 Analysis was performed on a sample of seven incumbent local exchange carriers ("ILECs"). Id. at 10; Table 2. A secondary analysis (the "Updated Analysis") was performed in the fall of 2002 and was used merely to corroborate the results of the 1999 Analysis. SBCI Ex. 12.0 at 27-29. In the Updated Analysis, SBCI implemented DCF and risk premium analyses to estimate the cost of common equity for a sample consisting of the four surviving members of the telephone sample group used by Staff in preparing its recommendations in the Commission proceeding Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic, ICC Docket Nos. 96-0486 / 96-0569 (consol.). SBCI Ex. 12.0 at 27-29.

DCF Analysis. SBCI's 1999 Analysis included a DCF analysis that combined Value Line and IBES 3-5 year earnings growth rate estimates with dividend yields derived from dividend and stock price data published by Value Line. SBCI Ex. 12.0 at 10-15. That analysis produced cost of equity estimates of 14.3% using Value Line growth rates and 12.2% using IBES growth rates. SBCI EX. 12.0 at 15. In its Updated Analysis, SBCI performed a DCF analysis, which produced a cost of equity estimate of 14.2%. SBCI Ex. 12.0 at 27-28. SBCI used "bxr" growth rates in that analysis on the

premise that current analyst growth rate estimates understate investor long-term expectations. Id.

Risk Premium Analysis. SBCI's 1999 Analysis included an expectational risk premium analysis and a CAPM analysis. SBCI Ex. 12.0, Schedule WEA-1 at 15-19. SBCI's expectational risk premium analysis was based on a study by Harris and Marston, which relates the equity risk premium demanded by investors to the current long-term government bond yields. Id. at 16-17. The Harris and Marston study reflected data from 1982-1991. Id. at 17. That study showed a relationship between the equity risk premium and long-term government bond yields of:

$$RP_t = 6.47\% + 0.651(9.84 - r_t)$$

where $RP_t \equiv$ the risk premium at time t and

$r_f \equiv$ the long-term government bond yield at time t

Id. Using a long-term government bond yield of 5.80%, the expectational risk premium produced a cost of equity estimate of 14.90%. Id. SBCI's CAPM incorporated a historical risk premium based on realized returns for the S&P500 and government bonds from 1926-1998, as published by Ibbotson Associates. Id. at 18. The CAPM produced a cost of equity estimate of 12.03%. Id. at 18-19.

For its Updated Analysis, SBCI recreated its expectational risk premium analysis using an updated version of the Harris and Marston study, which covers the period 1982-1998. SBCI Ex. 12.0 at 29. The updated study showed a relationship between the equity risk premium and long-term government bond yields of:

$$RP_{j,t} = 7.14\% + 0.869\ (8.53 - r_t)$$

Id. Using a long-term government bond yield of 4.76%, the expectational risk premium produced a cost of equity estimate of 15.18%. Id. SBCI's Updated Analysis also included a CAPM, which incorporated a current risk premium based on a DCF analysis of the S&P500 and the long-term government bond yield. Id. at 28-29. The CAPM produced a 14.42% cost of equity estimate. Id. at 29.

(c) AT&T / MCI's Recommendation

AT&T / MCI derived a 9.46% cost of common equity estimate for SBCI's UNE loops using DCF and risk premium models. AT&T / MCI Joint Ex. 2 at 19-20. AT&T / MCI employed a sample consisting of the holding companies for each of the regional Bell operating companies, excluding Qwest, inasmuch as (1) it pays no dividends and (2) recent accounting revelations have rendered its comparability uncertain. Id.

DCF Analysis. AT&T / MCI used, for this purpose, a three-stage DCF model with a 5-year abnormal growth stage that assumes a growth rate equal to the current five-year mean growth rate estimate published by Thompson Financial Network, a 10-year transition stage that assumes each company's growth rate will steadily converge toward the overall economic growth rate, and an infinite terminal stage that assumes a growth rate for all companies equal to the long-term estimate of the overall economic growth from the Survey of Professional Forecasters. AT&T / MCI Joint Ex. 2 at 22-24. AT&T / MCI's DCF analysis produced a cost of equity estimate of 9.72%. Id.

Risk Premium Analysis. AT&T / MCI used the CAPM, as described previously, for this purpose. AT&T / MCI Joint Ex. 2 at 26. AT&T / MCI's CAPM analysis incorporated a beta of 0.917, a risk-free rate estimate of 4.61% based on an average of current and forecasted 10-year Treasury note yields, and a market risk premium of

5.00% based on five studies of equity risk premiums. Id. at 31-33. AT&T / MCI's CAPM analysis produced a cost of equity estimate of 9.19%. Id. at 33.

(d) Response to AT&T / MCI's Criticisms

AT&T / MCI suggests that Staff's constant-growth DCF is inappropriate for use in this proceeding. AT&T / MCI Joint Ex. 3 at 15-17. AT&T / MCI claims that the five-year growth rates Staff used noticeably exceed the long-term growth of the overall economy. Id. AT&T / MCI's claim is dubious. A constant growth DCF model is a one-stage DCF model that assumes, for the purpose of practical simplification, that the selected growth rate input is a reasonable estimate of the target company's average growth rate in perpetuity. Staff Ex. 36.0 at 3. Since the growth rate of an individual company cannot continuously exceed that of the overall economy in perpetuity, to assess the reasonableness of the constant growth assumption one must evaluate the available company-specific growth rates relative to those of the overall economy in perpetuity. Id. Unfortunately, the future growth rate of the overall economy in perpetuity is unknowable. Id.

Current long-term growth rate forecasts for the overall economy, which typically span 10 to 20 years, can serve as inexact proxies for growth into perpetuity. Staff Ex. 36.0 at 3. At the time of Staff's analysis, the average growth rate for the companies in Staff's Telecom Sample was 7.09%, while the 10 to 20 year growth rate estimate for the overall economy was approximately 6.0%. Id. As AT&T / MCI notes, Staff contrasted the growth rates from its analysis in this proceeding with those used by Staff in Illinois Bell Telephone Company: Application for review of alternative regulation plan / Illinois Bell Telephone Company: Petition to Rebalance Illinois Bell Telephone Company's

Carrier Access and Network Access Line Rates / Citizens Utility Board and the People of the State of Illinois -vs- Illinois Bell Telephone Company: Verified Complaint for a Reduction in Illinois Bell Telephone Company's Rates and Other Relief, ICC Docket No. 98-0252/0335; 00-0764 (consol.) (December 30, 2002) (hereafter "Alt Reg Review Proceeding").[11]

In the *Alt Reg Review Proceeding*, Staff concluded that the use of a non-constant DCF model was warranted due to the significant difference between the average growth rate for Staff's sample (13.19%) and the long-term growth rate estimate for the overall economy (5.0%). Staff Ex. 36.0 at 3-4. Clearly, the more than 8% difference in growth rates in Staff's analysis rendered the constant growth DCF inappropriate at that time. Id. at 4. In contrast, the same cannot be said for the approximately 1% difference in growth rates in Staff's analysis in this proceeding, given the inexactitude of long-term growth rate estimates. Id. Moreover, the greater weighting applied to the first five years of cash flow growth in present value analysis makes that difference even less consequential. Id. Thus, a multi-stage DCF analysis is not necessary at this time. Id. Additionally, AT&T / MCI's proposed alternative, a multi-stage DCF model, merely exchanges one set of assumptions for another. Staff Ex. 36.0 at 4. That is, to implement a multi-stage DCF model, one must subjectively estimate both the length of the transition period and the magnitude of transition period growth. Id. For example, AT&T / MCI's 3-stage DCF model assumes all growth rates will converge to the economy-wide growth rate in 15 years. AT&T / MCI Joint Ex. 2 at 23. AT&T / MCI has not presented any evidence to support that assumption. If it were clear that current

[11] Staff Ex. 12.0 at 9, Alt Reg Review Proceeding.

company-specific growth rate estimates represented abnormal growth, as was the case in *the Alt Reg Review Proceeding*, a multi-stage DCF model would be warranted, and a judgment with regard to appropriate parameters for the transition period would be necessary. Staff Ex. 36.0 at 4. However, given the slight difference between the average growth rate for Staff's Telecom Sample and the growth rate estimate for the overall economy, such a judgment is unnecessary. Id. Thus, a non-constant DCF proposal is not clearly better than a constant growth model at this time. Id. at 4-5.

AT&T / MCI suggests that some of the seven companies in Staff's Telecom Sample do not provide appropriate measures of the cost of capital for UNEs. AT&T / MCI Joint Ex. 3 at 18-19. AT&T / MCI suggests that the three regional Bell operating companies in Staff's Telecom sample provide better comparables. Id. However, the Commission is not setting rates for SBC's overall operations or the overall operations of other ILECs; it is, instead, setting rates specifically for UNEs. Staff Ex. 36.0 at 5. The FCC directed that UNE loop rates reflect facilities-based competition. Id. In Staff's judgment, Staff's Telecom Sample, which comprises diversified telecommunications companies reflecting a combination of regulated and unregulated operations, is appropriate for setting UNE rates, given the FCC's directives. Id. The moderately high degree of competitive risk reflected in Staff's recommendation is consistent with the degree of efficiency reflected in the other cost components of Staff's proposed UNE loop rates. Id.; *see also* Staff Exhibit 31.0 at 4.

AT&T / MCI criticizes Staff's use of a current "spot" equity risk premium estimate, cites several lower risk premium estimates, and concludes that Staff's CAPM overstates the cost of capital due to an excessive equity risk premium. AT&T / MCI Joint Ex. 3 at

19-22. AT&T / MCI's claim is purely opinion. Significantly, only the magnitude of investors' return requirements is relevant, not opinions as to the reasonableness of those requirements. Staff Ex. 36.0 at 6. The equity risk premium embedded in Staff's CAPM analysis is a direct measurement of the current equity risk premium based on current market data. Id. Nevertheless, AT&T / MCI opines that the current expected risk premium is too high based on equity risk premium estimates from studies that are based on longer time series of data. AT&T / MCI Joint Ex. 3 at 21. However, the use of a time series necessarily introduces historical data, which favors outdated information that the market no longer considers relevant over the most-recently available information. Staff Ex. 36.0 at 6. In contrast, current expectations incorporate all relevant available information. Id. As proxies for the current expected equity risk premium, historical expected equity risk premiums suffer several shortcomings. Id. First, the returns an investment generates are unlikely to have equaled investor return requirements due to unpredictable economic, industry-related, or company-specific events. Id. Second, even if an investment's return equaled investor requirements in a given period, both the price of, and the investment's sensitivity to, each source of risk changes over time. Id. Consequently, the past relationship between two investments, such as common equity and debt, is unlikely to remain constant. Id. Finally, because of the dynamic relationship between common equity and debt, the magnitude of the historical risk premium depends upon the measurement period used. Id. at 6-7. Unfortunately, no proven method exists for determining the appropriate measurement period. Id. at 7. Thus, historical risk premiums are questionable estimates of the expected risk premium that are susceptible to manipulation and whose use could distort

the estimate of a company's cost of equity. Id. The only equity risk premium that is relevant to investors' current required return is the current equity risk premium, which is reflected in current market data. Id.

AT&T / MCI claims that Staff's estimate of the current equity risk premium is flawed because the market return requirement is based on a constant growth DCF. AT&T / MCI Joint Ex. 3 at 3, 21. While one would not expect an individual company to maintain a higher growth rate than that of the overall economy in perpetuity, at any given time, certain individual companies will grow faster than the overall economy over a finite period, while others will grow more slowly. Staff Ex. 36.0 at 7. Thus, it is not unreasonable to expect an index, such as the S&P500, to maintain a higher growth rate than that of the overall economy, since an index is a dynamic compilation of companies (e.g., if a company's financial viability declines, it may be replaced in the index by a new company with superior prospects). Id. This survivorship bias may produce a higher average growth rate for the index than that of the overall market. However, that does not necessarily render the required return on the S&P 500 a poor proxy for the market return component of the CAPM. Id. The investor-expected return incorporates two components, growth and income (e.g., dividends). Id. For a given investor-expected return, the higher the growth component, the lower the income component, and vice-versa. Id.; *see also* Staff Ex. 31.0 at 23. Thus, the higher growth rates of the companies in the S&P500 may be offset by lower dividend yields than they might otherwise maintain. Id. AT&T / MCI has not demonstrated otherwise.

(e) Response to SBCI's Criticisms

SBCI criticizes Staff's DCF cost of equity estimate, noting that the individual estimates for four of the seven companies in Staff's Telecom Sample are less than 10% and noting that authorized rates of return on gas and electric utilities were 11.37% and 11.38%, respectively, in the first half of 2003. SBCI Ex. 12.1 at 7. SBCI's criticism is without merit.

Individual results within Staff's cost of equity analysis should not be analyzed in isolation, for it is the reasonableness of the overall analysis that matters. Staff Ex. 31.0 at 19. Staff's cost of equity recommendation is based on the average cost of equity results for a sample of seven companies; it is not based on the estimate from any single company. Id. at 18. Moreover, Staff's cost of equity recommendation is based on the average cost of equity results produced by Staff's DCF and CAPM analyses; it is not based on a single cost of equity model. Id.

Estimates for a sample as a whole are subject to less measurement error than individual company estimates, as high and low measurement errors in individual estimates are likely to offset each other. Staff Ex. 31.0 at 18. Removing only the lowest individual estimates from the sample while retaining the highest individual estimates, as SBCI proposes, distorts the results of the sample overall and skews the average upward. Id. While this serves SBCI's purpose of obtaining a higher average cost of equity estimate, it defeats the purpose of using a sample. Id. Similarly, Staff's use of two distinct models to estimate the cost of equity moderates biases due to the prevailing economic conditions that individual either model may reflect. Id. at 18-19.

In addition, it should be noted that the -Commission is not bound by the returns authorized by other jurisdictions. Staff Ex. 31.0. at 19. Thus, the average equity returns

authorized by various bodies of authority for gas and electric utilities in 2003, to which SBCI compares Staff's DCF estimates, are not relevant to this proceeding. Id. Moreover, SBCI has not demonstrated the risk level of the companies included in those average authorized equity returns. Id. Thus, their rates of return cannot reasonably be compared to those in this proceeding. Id. Nevertheless, Staff's ultimate cost of equity recommendation was 12.44%, which is significantly higher than the 11.37% and 11.38% average equity returns authorized for gas and electric utilities, respectively, in 2003. Id. SBCI claims that 5-year growth rates for the Telecom industry reflect a near-term slump in the industry and understate investors' long-run growth expectations for the industry. SBCI Ex. 21.1 at 9. SBCI is wrong. As graphically demonstrated in Staff Ex. 12.0, Schedule 12.8, current growth rate estimates for the telecommunications industry are not depressed, but rather, have merely returned to more reasonable levels after a period of unusually high growth expectations. Staff Ex. 31.0 at 20. Mathematically, the long-term growth rate for an individual company cannot exceed the growth rate for the overall economy indefinitely or that company will eventually grow to become the economy. Id. Since the five-year growth rates Staff employed are actually slightly above the long-run growth rate expectations for the overall economy, the significantly higher growth rates SBCI espouses would clearly be unsustainable. Id.

Furthermore, SBCI's argument stands in contrast – indeed, in opposition – to its contention that the introduction of competition has dramatically increased its risk and will continue to do so into the foreseeable future. Id. To justify a higher cost of capital, SBCI argues at length that its risk has increased due to the loss, and continuing threat of futures losses, of local customers to competitors. Id. at 20-21. Indeed, SBCI, in

lamenting its inability to make up for UNE-based losses, quotes a *Wall Street Journal* article that suggests it would take approximately five new long-distance customers to replace a single lost local customer. Id. at 21, *citing* SBCI Ex. 12.1 at 50-51. At the same time, SBCI argues that one should expect the growth rate of ILECs such as SBCI to outpace that of the overall economy beyond five years. Id. Those two arguments are not consistent. Id.

(f) Criticisms of SBCI's Analysis

There are two major flaws in SBCI's cost of equity analysis. First, SBCI employed the incorrect "r" value in calculating the "bxr" growth rate for use in its DCF analysis. Staff Ex. 12.0 at 39-40. The "bxr" growth rate is a measure of sustainable earnings growth. The theoretically correct "r" value is the rate of return on *new* investment only. Id.; Staff Ex. 31.0 at 21-22. SBCI, however, mistakenly uses the return on *average* investment, which includes returns on *existing* investment. Staff Ex. 12.0 at 39. ILEC new investment is generally characterized by lower returns than ILEC average investment. Id. Capacity constraints render growth from existing investment unsustainable. Staff Ex. 31.0 at 21. A simple review of the "bxr" formula demonstrates the rate of return on new investment to be the correct rate of return. Id. The "b" factor to which the rate of return is applied is retained earnings, which are earnings the company plows back into *new investment*. Id. The sustainable growth is the return the company is expected to earn on the reinvestment of those retained earnings. Id. Thus, the "r" value in the "bxr" growth rate should reflect return on *new* investment, as the cost of equity is to be measured on a forward-looking basis. Id.

Second, in conducting its DCF analysis, SBCI mismatched dividend yields from 2002 with growth rates from 2005-2007, which is a violation of valuation principles. Staff Ex. 12.0 at 39; Staff Ex. 31.0 at 23. For each of the four companies in SBCI's sample the forecasted dividend yields[12] are significantly lower than the recent dividend yield. Staff Ex. 12.0 at 39. The current higher dividend yields are based on relatively low earnings retention ratios, whereas the 2005-2007 growth rates are based on higher projected earnings retention ratios. Id. In order for the companies in that sample to increase their earnings retention ratios to match those forecasted by Value Line and achieve SBCI's relatively high projected growth rates, the companies would have to reduce their payout ratios, thereby reducing their dividend yields, which is precisely what Value Line forecasts. Id. Conversely, maintaining those companies' current higher dividend yields would lead to lower sustainable growth rates than SBCI projected. Id. To illustrate, combining SBCI's growth rate estimates based on 2005-2007 projections with Value Line's 2005-2007 dividend yield projections produces a cost of equity of 12.2%, as opposed to the 14.2% SBCI calculated. Staff Ex. 31.0 at 24. Thus, SBCI's implementation of the DCF model overstates the cost of equity. Id.

SBCI's attempts to defend its 2005-2007 growth rate estimates by stating that Value Line's projected growth rate estimates apply to the next three-to-five years, not the period beginning three-to-five years hence. SBCI Ex. 12.2 at 23. SBCI's argument is a red herring, as it relates to data that is not in question. Although Value Line does develop and publish growth rate estimates that apply to the next three-to-five years, Staff's critique had nothing to do with those estimates. Indeed, SBCI did not use Value

[12] In addition to recent dividend yields, Value Line publishes forecasted dividend yield data for the 2005-2007 time period.

Line's growth rate estimates in its analysis; rather, SBCI developed its own distinct growth rate estimates based on Value Line's per-share projections of earnings, dividends, and book value for SBCI's sample companies beginning three-to-five years from the time of SBCI's analysis. SBCI Ex. 12.0, Schedule WEA-2. Those are the growth rates SBCI used in its analysis, and those are the growth rates whose use Staff questioned. SBCI's clarification regarding growth rate estimates that SBCI did not use in its analysis does nothing to address Staff's criticism. Thus, Staff's original critique stands uncontroverted and SBCI's position should be disregarded.

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(5) Capital Structure

Staff recommends a capital structure comprising 4.78% short-term debt, 44.22% long-term debt, and 51.00% common equity. Staff Ex. 12.0, Schedule 12.1. SBCI recommends a capital structure comprising 14.00% long-term debt and 86.00% common equity. SBCI Ex. 12.0 at 7. AT&T / MCI recommends a capital structure comprising 22.35% short-term debt, 11.53% long-term debt, and 66.12% common equity. AT&T / MCI Joint Ex. 2 at 45.

(a) Staff's Recommendation

In its *Comments* in response to the FCC's recent TELRIC NPRM,[13] the Commission stated, "The ICC believes that a forward-looking cost of capital should reflect the optimal, marginal capital structure, which would minimize the cost of capital and maintain a reasonable level of financial strength. *Initial Comments of the Illinois*

[13] *Notice of Proposed Rulemaking*, In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers, FCC No. 03-224, WC Docket No. 03-173 (September 10, 2003: Adopted; September 15, 2003: released)(hereafter "TELRIC NPRM")

Commerce Commission at 61, TELRIC NPRM. The Commission added, "one should determine whether the capital structure is consistent with the financial strength necessary to access the capital markets under most conditions, and if so, whether the cost of that financial strength is reasonable." Id. Staff agrees. The appropriate capital structure to use in setting prices for UNE loop operations is one that is consistent with the financial strength necessary to access the capital markets at a reasonable cost. Staff Ex. 12.0 at 25. Staff recommends using an imputed capital structure indicative of the financial strength of an A/A– credit rating, which is the average credit rating of the companies in the Telecom Sample from which Staff derives its cost of equity estimate. Id. A debt issuer with a credit rating in the A range has access to debt capital at a reasonable cost. Id.

S&P categorizes debt securities on the basis of the risk that a company will default on its interest or principal payment obligations. Staff Ex. 12.0 at 27. The resulting credit rating reflects both the operating and financial risks of a company. Id. Although no formula exists for determining a credit rating, S&P publishes key financial ratio values, by credit rating, including: (1) earnings before interest and taxes ("EBIT") interest coverage; and (2) earnings before interest, taxes, depreciation, and amortization ("EBITDA") interest coverage. Id. The EBIT and EBITDA interest coverage ratios are fundamental measures of a company's financial strength, as both measure a company's ability to meet its interest obligations, the former ratio from an earnings standpoint and the latter from a cash flow standpoint. Id. Thus, setting a capital structure based on interest coverage ratio benchmarks indicative of a reasonable

degree of financial strength produces a capital structure that is consistent with a reasonable degree of financial strength. Id.

To develop its capital structure recommendation, Staff began with its capital component cost recommendations of 1.47% for short-term debt, 4.99% for long-term debt, and 12.44% for common equity. Staff Ex. 12.0 at 27. Staff then set the total debt ratio equal to one minus the equity ratio. Id. It next divided the total debt capital into short- and long-term debt based on the proportion each represents in SBCI's December 31, 2002 capital structure. Id. Finally, through an iterative process, Staff adjusted the equity ratio until a capital structure that produced interest coverage ratios consistent with the appropriate benchmarks was derived. Id.

Staff targeted the Telecom Sample, which had an average EBIT interest coverage ratio of 5.4x and an average EBITDA interest coverage ratio of 8.4x.[14] Staff Ex. 12.0 at 27-28; Staff Ex. 36.0 at 8. However, since UNE loop rates should reflect a level of competition somewhere between that of fully regulated monopolies and unregulated industrial companies, the EBITDA interest coverage ratio should be bounded on the high end by the industrial median of 7.9x. Staff Ex. 12.0 at 30; Staff Ex. 36.0 at 8. In light of the Staff's capital component cost estimates, a capital structure including 51.00% common equity ratio would produce an EBIT interest coverage ratio of 5.6x, which is consistent with the Telecom Sample's EBIT interest, and an EBITDA interest coverage ratio of 7.87x, which is within the upper bound of the industrial median. Staff Ex. 12.0 at 28; Staff Ex. 36.0 at 8. Debt constitutes the remaining 49.00% of total capital. Staff Ex. 12.0 at 28. Since short-term debt composed 9.76% of

[14] The average interest coverage ratios for the Telecom Sample exclude those for Sprint because Sprint's EBIT interest coverage ratio was negative.

SBCI's December 31, 2002 total debt balance, short-term debt was assigned 9.76% of the 49.00% debt capital in the imputed capital structure, or 4.78% of total capital. Staff Ex. 12.0 at 27-28. Likewise, since long-term debt composed 90.24% of SBCI's December 31, 2002 total debt balance, long-term debt was assigned 90.24% of the total debt capital in the imputed capital structure, or 44.22% of total capital. Id. In summary, given the capital component costs noted above, a capital structure consisting of 4.78% short-term debt, 44.22% long-term debt, and 51.00% equity produced interest coverage ratios consistent with the appropriate benchmarks. Id.; *see also* Staff Ex. 36.0 at 8.

(b) SBCI's Recommendation

SBCI's capital structure recommendation is based on the average book value of debt and market value of equity for SBCI's seven company LEC sample as of year-end 1998. SBCI Ex. 12.0, Schedule WEA-1, Table 1.

(c) AT&T / MCI's Recommendation

AT&T / MCI's capital structure recommendation is based, in part, on the average book value of debt as of December 31, 2002 and market value of equity as of April 4, 2003 for its three company LEC holding company sample. AT&T / MCI Joint Ex. 2, Attachment TLM-2 at 3 and 12. This produced an equity ratio estimate of 70.74%, which AT&T / MCI averaged with the 61.50% book value equity ratio for SBCI as of December 31, 2002 to derive its final 66.12% equity ratio recommendation. Id. The remaining 33.88% of the capital was divided into short- and long-term debt based on the proportion each represents in SBCI's December 31, 2002 book value capital structure. Id.

(d) Response to SBCI's Criticisms

SBCI claims that Staff's capital structure is fundamentally flawed because it is inconsistent with the FCC's guidelines for a TELRIC-based cost of capital. SBCI Ex. 12.1 at 19. This claim is entirely unfounded.

SBCI asserts that it is the FCC's position that UNE rates should reflect full, ubiquitous competition. SBCI Ex. 12.1 at 4, 5, 7, 13, 27, 33. This assertion is defective in several ways. First, it appears to be based upon SBCI's reading of the FCC's *Triennial Review Order*.[15] *See* SBCI Ex. 12.1 at 3-5. Reliance on this *Order* for the proposition that it somehow radically alters the TELRIC scheme is misplaced. The federal Circuit Court of Appeals for the District of Columbia Circuit recently reversed portions of the *Triennial Review Order* as contrary to the Act. *See* United States Telecom Association v. Federal Communications Commission, -- F.3d --, 2004 U.S. App. Lexis 3960; No. 00-1012 (D.C. Cir.)(March 2, 2004) (hereafter "USTA v. FCC"). Moreover, the *Triennial Review Order* does not purport to alter the TELRIC rules in any way, and in fact does not do so.

Likewise, SBCI's assertion mischaracterizes the FCC's directives by implying that the FCC indicated that state Commissions are required to assume full competition in determining the cost of capital, when in fact it did no such thing. The Triennial Review Order passages SBCI cites as the authority for this claim, *see* SBCI Ex. 12.1 at 4, 33, do not indicate the level of competition that the cost of capital used in UNE pricing

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[15] *Report and Order and Order on Remand and Further Notice of Proposed Rulemaking*, In the Matter of Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, and Deployment of Wireline Services Offering Advanced Telecommunications Capability, , FCC No. 03-36 CC Docket Nos. 01-338, 96-98 & 98-147 (rel. Aug. 21, 2003) ("Triennial Review Order" or "TRO").

should reflect, merely that *some* unspecified level of competitive risk should be reflected. *See* Triennial Review Order, ¶680. Moreover, this issue is clearly left to the discretion of state Commissions. Triennial Review Order, ¶684.

In light of this, the Commission's *Initial Comments* on the FCC's recent *TELRIC NPRM* are instructive. In those *Comments*, the Commission stated that the appropriate cost of capital used in any given pricing model is one that reflects a level of competitive risk that is consistent with the level of efficiency of the UNE network implied by the other cost factors used in that pricing model. *Initial Comments of the Illinois Commerce Commission* at 58-59, TELRIC NPRM. The level of competitive risk reflected in Staff's cost of capital recommendation is consistent with the level of efficiency of the UNE network implied by the operating costs used in Staff's pricing model. In contrast, a cost of capital reflecting full competition, as SBCI advocates, would not be consistent with the level of efficiency of the UNE network implied by the operating costs used in the company's pricing model. Staff Exhibit 31.0 at 2-5.

SBCI criticizes Staff's capital structure calculation because it was based on interest coverage ratios. SBCI Ex. 12.1 at 20-21; SBCI Ex. 12.2 at 14. The company's criticism is unfounded and disingenuous. In erroneously criticizing Staff's capital structure analysis for being based on a single financial ratio, SBCI completely ignores the fact that its own recommended capital structure and the alternative capital structures it provided were all based on a single financial ratio, the debt ratio. Staff Ex. 31.0 at 12-14. Debt ratios are very imprecise measures of financial strength; consequently, debt ratio benchmarks are nothing more than very flexible guidelines. Id.; *see also* Staff Ex. 12.0 at 29. Staff's capital structure was based on both the EBIT interest coverage ratio

and the EBITDA interest coverage ratio, both of which incorporate the crucial determinants of a company's ability to meet its debt service obligations: earnings, cash flows, and interest costs. Staff Ex. 12.0 at 27; Staff Ex. 31.0 at 13-14. In contrast, the debt ratio does not adequately incorporate earnings, cash flows, or interest costs. Staff Ex. 12.0 at 29. Because the EBIT and EBITDA interest coverage ratios reflect the relative costs and proportions of debt and common equity, they are better indicators of financial strength than the debt ratio. Id.

SBCI argues that the proper basis for the capital structure used to set UNE prices is the secondary market value of previously issued capital, citing the FCC Wireline Bureau's opinion in the *Virginia Arbitration Order*.[16] SBCI Ex. 12.1 at 25-27. The company is wrong.

First, it scarcely needs to be said that the *Virginia Arbitration Order* is not binding on the Commission. Further, the theoretically appropriate capital structure to use in setting UNE pricing is a projection of the mix of marginal capital (i.e., capital that has yet to be raised) a hypothetical facilities-based local exchange carrier would raise in order to buy assets to serve customers, in which case market and book values would equate. Staff Ex. 31.0 at 7-8. However, that approach is problematic, as a forward-looking capital structure cannot be observed. Id. at 8. A company's target capital structure could be assumed, but SBC and its subsidiaries do not manage their capital structures to exact targets. Staff Ex. 12.0 at 26. In addition, SBCI's capital structure is not

[16] In the Matters of: Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration / Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia Corporation Commission Regarding Interconnection Disputes With Verizon Virginia Inc., DA No. DA 03-2738, CC Docket Nos. 00-218 & 00-251 (Common Carrier Bureau, Aug. 29, 2003) (hereafter "Virginia Arbitration Order")

meaningful as it receives all of its new capital, both debt and equity, from SBC. Staff Ex. 12 at 26. Moreover, SBC's current capital structure should not be used because (1) it reflects non-regulated and non-utility operations and thus its use in setting rates may violate Section 9-230 of the Illinois Public Utilities Act; (2) it is unnecessarily expensive; and (3) it would be inconsistent to combine the capital structure of an AA–/A+ rated company with Staff's cost of equity estimate, which is based on a sample of companies with an average credit rating of A/A–. Id. Thus, Staff estimated a hypothetical forward-looking capital structure by establishing a capital structure consistent with a reasonable level of financial strength. Id. at 26-28. In contrast, SBCI elected to use the secondary market values of capital already invested in company assets. *See* SBCI Ex. 12.1 at 26-27.

SBCI's approach is badly flawed. Not only is the use of capital already invested in company assets as the basis for the capital structure inconsistent with the TELRIC principle of using marginal capital, but also, the value of those previously issued securities on the secondary market tells us nothing with regard to the mix of capital a company has raised in the past or would raise going forward. Staff Ex. 31.0 at 8-9. SBCI suggests that a UNE provider's customers should pay a return on the total value of the provider's previously issued securities on secondary markets. SBCI Ex. 12.1 at 25-27. However, the value of a company's previously issued securities on secondary markets has no bearing on the mix of capital directly invested in assets serving customers; and it is only that mix of capital directly invested in assets serving customers that is relevant. Staff Ex. 31.0 at 9. Put more simply, ratepayers are required to pay a return only on funds used for the benefit of ratepayers. *See, e.g.*, Citizens Utility Board

v. Commerce Commission, 276 Ill. App. 3d 730; 658 N.E. 2d 1194; 213 Ill. Dec. 173 (1st Dist. 1995); *app. den.* 165 Ill. 2d 548 (1996) (ratepayers can only be required to pay for investment in plant that produces current benefits).

In other words, SBCI's argument is an appeal for fair-value rate making, which is to say ratemaking based upon the so-called "present fair value" of the property a utility uses to render service, thereby adequately compensating investors who purchase shares at the current trading price on the financial markets, rather than its prudent used, and useful investment in such property. *See* Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591; 64 S. Ct. 281; 88 L. Ed. 333; 1944 U.S. LEXIS 1204 (1944) (Court describes of differences between the two ratemaking methodologies; overturns 1898 Supreme Court decision requiring "fair Value" ratemaking); *see also* Illinois Bell Telephone Co. et al. v. FCC, 988 F.2d 1254; 300 U.S. App. D.C. 296; 1993 U.S. App. LEXIS 6808; 72 Rad. Reg. 2d (P & F) 530 (D.C. Cir. 1993) (Illinois Bell criticized for attempting to revive this rejected doctrine). As this doctrine has been out of favor since 1944, SBC's backhanded attempt to revive it should be rejected.

SBCI claims that Staff's capital structure calculation includes too little equity to maintain a reasonable level of financial strength. SBCI Ex. 12.1 at 20-25. The company contends that Staff's capital structure would be inconsistent with an A credit rating and even inconsistent with an investment grade credit rating. Id. The company is wrong. Staff Ex. 12.0 at 26-32; Staff Ex. 31.0 at 11-13. Staff's capital structure was calculated to produce interest coverage ratios consistent with an A/A– rating. Staff Ex. 12.0 at 26-32. In addition, Staff's 51.00% proposed equity ratio is above the 47.3% three-year average equity ratio for the sample group that formed the basis of Staff's cost

of equity, which has an average credit rating of A/A–. Id. Moreover, Staff demonstrated its capital structure proposal is consistent with an A/A– rating based on the 57.4% median equity ratio for A-rated industrials that SBCI presented. Staff Ex. 12.0 at 26. In contrast, the company's 86% equity ratio proposal is almost 30 percentage points higher than the 57.4% median equity ratio for A-rated industrials, which demonstrates the excessiveness of the company's proposal. Staff Ex. 31.0 at 12. Even the list of alternative capital structure ratios the company presented, each of which Staff demonstrated to be severely flawed and the very highest of which was 82.2%, does not support such an excessive equity ratio. SBCI Ex. 12.1 at 21-24; Staff Ex. 31.0 at 14. Moreover, an excerpt from AT&T / MCI testimony – upon which SBCI appears to rely, see SBCI Ex. 12.2 at 16 – suggests that ratings agencies expect an SBC subsidiary's potential acquisition of AT&T Wireless to weaken SBC's financial condition due to an increase in SBC's debt burden. Thus, contrary to SBCI's claims that "telephone companies – including SBC – are continuing to adopt more conservative financial policies," it appears ratings agencies expect SBC to decrease its relative equity level when the need for additional capital arises, not increase it. Id; SBCI Ex. 12.1 at 24.

SBCI argues that short-term debt should not be included in the capital structure. SBCI Ex. 12.1 at 28. The company argues that the maturity of a UNE provider's debt should correspond approximately to the long-term nature of UNE assets. Id. This is not unreasonable, as it is not uncommon for companies to attempt to match the maturities of their assets and liabilities in order to reduce risk. Staff Exhibit. 31.0 at 14-15. However, depreciation effectively reduces the average maturity of UNE assets to approximately 9.77 years, based on Staff's 5.12% depreciation rate. Staff Ex. 31.0 at

15. Thus, the 11.65 year weighted average maturity of the debt in Staff's cost of capital recommendation corresponds much more closely to the maturity of UNE assets than does SBCI's proposal, which reflects an average debt maturity of 20 years or more. Id. SBCI also states that the 9.77-year "average maturity" of UNE assets does not correspond to the life of new UNE facilities while a 5.12% depreciation rate equates to a useful life of over 19 years on a straight-line basis. SBCI Ex. 12.1 at 28. That contention is perplexing, as it simultaneously acknowledges the depreciation *rate* in calculating the useful life, while ignoring the actual annual *depreciation* of the asset. The total depreciation period, which should approximate the useful life of the asset, is approximately 19.5 years based on a 5.12% depreciation rate. Staff Ex. 31.0 at 15. However, rather than recovering the full investment in a lump sum at the end of 19.5 years, depreciation allows the company to recover 5.12% of the investment each year for 19.5 years. Thus, after 9.77 years, half of the investment will have been recovered and half will still be outstanding. In other words, the average investment recovery time, is approximately 9.77 years. Accordingly, if the company seeks to reduce its risk, it would issue debt with an average maturity of approximately 9.77 years to match the average maturity of its assets. Thus, SBCI's stated basis for proposing its 20+ year average debt maturity, conflicts with the company's original contention that debt and asset maturities should be matched.

Finally, SBCI contends that depreciation corresponds to the annual retirement of long-term debt, not the annual conversion of a portion of long-term financing into short-term debt. SBCI Ex. 12.1 at 28. That claim is without basis. While the hypothetical UNE provider could attempt to specifically match every depreciation cash flow with

maturing debt, which would require issuing debt of every maturity from zero to 19.5 years, it is more reasonable to assume that a company will combine a more limited number of maturities to produce a weighted average maturity of approximately 9.77 years, which is precisely what Staff's proposal does. In fact, Staff's mix of debt is derived from that used by SBC, including the use of short-term debt. Staff Ex. 12.0 at 21-22.

Moreover, SBC's past use of short-term debt suggests it will also make substantial use of it in the future. Nevertheless, if short-term debt were not included in the company's capital structure, there would be no debt maturing to match the recovery of the assets until such time as the long-term debt matured. Moreover, if short-term debt was removed from Staff's capital structure, the average maturity would increase, making it a worse match for the average maturity of UNE assets. Thus, the company's plea to remove short-term debt from Staff's capital structure conflicts with the company's original argument that debt and asset maturities should be matched.

(e) Criticisms of SBCI's Analysis

SBCI's proposed capital structure is not suitable for use in setting UNE pricing, as it is inappropriately based on secondary market values of previously issued equity and contains an excessive amount of equity. Staff Ex. 12.0 at 41-42; Staff Ex. 31.0 at 7-8.

UNE loop rates are to be developed on a forward-looking basis. Staff Ex. 12.0 at 41. A forward-looking cost of capital incorporates the cost rates and relative amounts of new debt and stock. Id. Issuances of capital are recorded on a company's books at market value. Id. That is, there is no difference between the market value and book value of incremental capital issuances and thus, there is no difference between the

market value and book value of a forward-looking capital structure. Id. The Commission recognized this principle in its *TELRIC Order*. *See* TELRIC Order at 19-20, 21-22. Thus, the issue is not a matter of choosing a book value or market value capital structure, but rather, selecting a target capital structure that minimizes the cost of capital and maintains a reasonable level of financial strength – a capital structure that is efficient.

SBCI's proposed capital structure is not efficient. SBCI proposes using a capital structure consisting of 86% common equity and 14% long-term debt. Staff Ex. 12.0 at 41. The implied EBIT interest coverage and EBITDA interest coverage ratios for that capital structure, using Staff's proposed capital costs, equal 28.3x and 36.2x, respectively, which are well beyond the benchmarks, even for an industrial company with an AAA credit rating. Id. Even with SBCI's capital cost estimates, which include an overstated cost of debt, the implied EBIT and EBITDA interest coverage ratios equal 19.46x and 24.6x, respectively. Id. Those ratios would suggest a credit rating in the AAA range. Id. A reasonable level of financial strength can be achieved at a much lower cost. Id. Thus, SBCI's proposed capital structure includes too much equity and too little debt. *See also, generally*, Staff Ex. 31.0 at 7-15.

(6) Cost of Capital Conclusion

Staff's overall cost of capital recommendation, incorporating Staff's recommended cost of short-term debt, cost of long-term debt, cost of common equity, and capital structure equals 8.62%. Staff Ex. 12.0, Schedule 12.1. The record demonstrates that Staff's recommendations are based upon the valid application of sound financial theory, while those of the other parties are not. Furthermore, because

Staff's capital structure and component costs are intrinsically interdependent, and Staff's ultimate weighted cost of capital recommendation is based on a judgment regarding to the *overall* outcome, Staff's capital structure and component costs included in alternative recommendations should not be amalgamated with those included in alternative recommendations. Staff Ex. 12.0 at 25-27. Therefore, the Commission should adopt Staff's recommendations *in toto*, as presented in the table below, to set UNE prices in this proceeding.

Capital Component	Percent of Total Capital	Cost	Weighted Cost
Short-term Debt	4.78%	1.47%	0.07%
Long-term Debt	44.22%	4.99%	2.21%
Common Equity	51.00%	12.44%	6.34%
Total Capital	100.00%		
Weighted Average Cost of Capital			**8.62%**

C. Other Loop Recurring Cost Modeling And Input Issues

1. Cable and DLC Installation Costs/Factors

LoopCAT develops costs through utilization of installation factors for copper and fiber cable and Engineering, Furnishing and Installation ("EFI") factors for remote terminals ("RT") that house Digital Loop Carrier ("DLC") equipment. Staff Ex. 3 (Lazare Direct) at 17. Installation factors and EFIs are ratios of labor, engineering and other installation costs to material costs used to determine the total installed cost of various loop components. For example, if LoopCAT were to employ an installation factor of 1.5 for 24-gauge copper distribution cable, then the study would develop a total installed cost of $1.50 for every $1.00 expended on material. If the total material cost were $100, the total capital cost developed by LoopCAT with a 1.5 installation factor would be $150.

Id. at 17-18. SBCI developed installation factors to be applied to material costs for the distribution and feeder components of the loop, and reversed this relationship for the premises termination component of the loop by developing factors for material to be applied to labor costs. Id. at 18. Staff identified two deficiencies with SBCI's development of installation and EFI factors. Id. at 18-20.

First, the Company never demonstrated why costs so developed represent the forward-looking costs of an efficient carrier. Id., at 19. Second, the data utilized by SBCI to develop its installation factors was old and captured historical, inefficient cost relationships rather than efficient forward-looking cost relationships. The set of costs considered by the Company were the costs of expanding or reinforcing existing capacity rather than the costs of developing a new network. Id. at 19. Those costs do not reflect the economies of scale associated with large-scale network construction, and tend to overstate unit installation costs. Id. at 19-20. Indeed, SBCI witness Mr. White advances the cost inefficiency of augmenting and reinforcing the existing network as justification for building more spare capacity into the network, specifically testifying that "[t]he economics of placing outside plant are such that it is much more cost effective to install space capacity at the outset, than to continually augment existing facilities." SBCI Ex. 8 (While Direct), pp. 16-17.

Staff focused its attention on installation factors for (1) Remote DLCs and (2) copper and fiber cable. For Remote DLCs, Staff witness Mr. Lazare specifically demonstrated how the Company's approach overstated the associated installation costs for the LoopCAT model. Staff Ex. 3 (Lazare Direct), pp. 20-24. Staff witness Lazare explained that SBCI relied on data from certain investment accounts for the years 1997-

2000. In addition to using data that was up to six years old, the account data considered was not specific to the type of Remote DLC equipment being considered in LoopCAT. Id. at 22-23. Staff compared the total installed cost generated through utilization of the Company's EFIs to the actual total cost of installing the two types of Remote DLCs modeled in LoopCAT (obtained by Staff via data request). Staff determined that actual costs were significantly lower than the SBCI's factor derived costs, with actual costs sometimes totaling less than half the costs derived through the Company's factors. Id. at 23-24. This indicates that the Company's approach significantly inflates installation factors. While information was not available to conduct this comparison for every piece of equipment utilized in the loop, this case study undermines the Company's methodology, demonstrates that the Company's methodology fails to comply with TELRIC principles, and specifically calls into question all of the Company's installation factors. Id. at 24-25, 28.

These deficiencies in the Company's EFI factors for Remote DLCs led Staff witness Lazare to recommend that the Commission replace the Company's EFI factors for Remote DLCs with the EFI factors developed by Staff based on the actual cost of installing Remote DLCs. Id. at 25. SBCI witness Mr. Smallwood responded to this proposal in rebuttal. Although he disagreed with the criticisms of Staff, Mr. Smallwood proposed a downward revision to SBCI's Remote DLC EFI factors that compared favorably to the revised EFI factors proposed by Staff witness Lazare in his direct testimony. Staff Ex. 23 (Lazare Rebuttal), pp. 2-3; SBCI Ex. 4.1 (Smallwood) at 70. This counterproposal was accepted by Staff witness Mr. Lazare because it was based on more current data and produced EFI factors consistent with the factors developed by

Staff for specific DLCs based on information provided by SBCI in response to Staff data requests. Staff Ex. 23 (Lazare Rebuttal) at 3.

SBCI's copper and fiber cable installation factors were developed from capital accounts for the years 1999 to 2001. Staff Ex. 3 at 26-27. As with its EFI factors for Remote DLCs, SBC develops its feeder cable installation factors by relying on historical data and inflated costs that include the costs to expand and reinforce the existing network. Id. at 27-28. This approach clearly conflicts with TELRIC principles.

Developing a more reasonable alternative proved to be a challenge due to the lack of additional information provided by SBC beyond this historical copper and fiber cable capital account data. Id. at 28. The best approach in this situation was to base copper and fiber feeder cable installation factors not on cumulative data over a three-year period, but rather on the individual years that produce the lowest installation factors. Id. at 28. Staff witness Mr. Lazare testified that this approach is justified because all of the data relied upon by the Company overstates costs (even on an annual basis). Staff's alternative approach reduces but does not eliminate the overstatement of these costs. Nevertheless, it is a far more reasonable alternative to SBCI's proposed approach. Id. at 28-29.

SBCI witness Mr. Smallwood defended the Company's copper and fiber cable installation factors. Mr. Smallwood argued that Staff had failed to undermine the Company's argument that historical relationships would reasonably estimate future relationships between material and labor costs. SBCI Ex. 4.1 (Smallwood Rebuttal) at 61; *see also* Staff Ex. 23 (Lazare Rebuttal) at 5-6. Mr. Smallwood's position is flawed in a number of respects. His argument that Staff has the burden to disprove SBC's

approach is wrong. As discussed in Section II.A above, SBCI has the burden of proof in this proceeding. Thus, Staff and other parties do not have the initial burden of demonstrating why the costs developed by SBCI are not forward looking; rather, SBCI must demonstrate in the first instance why the method it has chosen develops costs that are forward looking and reflect the costs of an efficient carrier. SBCI has failed to meet this burden, and claiming that other parties have failed to disprove SBCI's assertion does nothing to meet SBCI's burden. See Staff Ex. 23 (Lazare Rebuttal) at 6-7. Moreover, as noted above, Staff has provided concrete examples with respect to DLC EFI factors demonstrating how historical data develops inflated costs.

With respect to Staff's alternative installation factors for copper and fiber cable, SBCI witness Mr. Smallwood criticized Staff for selecting data from individual years that generate the lowest installation factors. SBCI Ex. 4.1 (Smallwood Rebuttal) at 62. But selecting data for years that generate the lowest installation factors was precisely the point of Staff's approach. Given that the historical data relied upon by the Company overstates costs, selecting data for the particular year that generates the lowest installation factors is the only approach that moves the costs generated by LoopCAT towards TELRIC. Staff Ex. 23 (Lazare Rebuttal) at 7-8.

Finally, SBCI took issue with Staff's argument that the data relied upon by the Company generates overstated costs because it includes the high cost activities of expanding and reinforcing the network. First, SBCI maintains that Staff is wrong to contend that an efficient, forward looking firm would not devote resources to network reinforcement. SBCI Ex. 4.1 (Smallwood Rebuttal) at 63. Second, SBC contends that Staff's position misapplies the concepts of "new construction" versus "reinforcement

jobs", and argues that TELRIC requires use of "reinforcement jobs" because TELRIC assumes that the hypothetical efficient carrier would build in an environment containing the streets, driveways, sidewalks and other improvements that exist today. Id. at 63-64.

SBCI's first argument misstates applicable TELRIC standards and mischaracterizes Staff's position. In the TELRIC NPRM[17] the FCC explained its existing TELRIC rules and standards (as opposed to possible revisions to those rules and standards) as follows:

> [C]urrent TELRIC models typically are designed to answer the following question: If a single carrier were to build an efficient network today to serve all customer locations within a particular geographic area, taking as given only the locations of existing wire centers, how much would it cost to construct and maintain the network?"

TELRIC NPRM at ¶ 49. Unless and until the FCC's current rules and standards are modified, the current TELRIC standards and rules govern this proceeding. Thus, the costs to be modeled under TELRIC are the costs to build an efficient network today, not the additional costs that might be incurred if additional facilities must be added later. Staff's position does not require or assume "perfect" behavior as SBC contends, nor does it assume that an efficient, forward looking firm would never engage in network reinforcement. Rather, Staff's point is that TELRIC requires a determination of the costs "to build an efficient network today," not the costs to supplement later the network that would be built today. Therefore, the network reinforcement costs utilized by SBCI to develop its copper and fiber cable TELRIC costs are simply inappropriate for the task at hand. If one were to analogize to the housing market, SBCI has essentially derived the

[17] *In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, Notice of Proposed Rulemaking,, FCC 03-224 (Rel. Sept. 15, 2003) ("TELRIC NPRM").

costs of remodeling instead of the costs of new construction--with the attendant extra costs of remodeling projects.

SBCI's second argument is equally flawed. While conceding that the task at hand is to estimate the costs to build an efficient network today, SBC contends that the calculation should be based on the costs of installing a network in today's world where streets, driveways, sidewalks and other improvements must be taken into account. Based on this reasoning, SBCI contends that historical data which reflects reinforcement jobs is relevant for a TELRIC calculation despite Staff's claims to the contrary. SBCI Ex. 4.1 (Smallwood Rebuttal) at 63-64. Although Staff does not share SBCI's view that TELRIC requires costs to be developed based on the assumptions that **all** existing improvements must be torn out and replaced and that **every** construction project would require removal and replacement of an existing improvement, the appropriateness of such assumptions was not the point of Staff's critique. Rather, the key points of Staff's analysis are that the Company makes no effort to isolate the costs of new network construction (whether in new developments or in existing neighborhoods), and fails to capture costs that reflect the economies of scale that would be realized from complete (rather than piecemeal) construction of a new network. Staff Ex. 23 (Lazare Rebuttal) at 10-11. As a result, there can be no doubt that the historical data relied on by SBCI overestimates costs.

2. Copper/Fiber Crossover Point

LoopCAT employs a 12,000 foot crossover point which identifies the maximum loop length (as measured from the central office to the distribution terminal) for which both the feeder and distribution portion of the loop will utilize copper cable. For loops

exceeding the crossover point, LoopCAT costs a loop based on utilization of fiber feeder cable, Next Generation Digital Loop Carrier ("NGDLC") equipment, and copper distribution cable. As will be explained below, SBCI's utilization of a 12,000 foot crossover point is inefficient and unnecessarily inflates costs because it designs a network that includes too many NGDLCs. Staff recommends that loop costs be determined on the basis of an 18,000 foot crossover point.

Advanced Services and Loop Length

The FCC has defined advanced services[18] as "…high speed, switched, broadband, wireline telecommunications capability that enables users to originate and receive high-quality voice, data, graphics and video telecommunications[,]" and explained that "[t]he term 'broadband' is generally used to convey sufficient capacity – or 'bandwidth' – to transport large amounts of information."[19] The advanced services most commonly provided to residential and small business customers at this time are based on digital subscriber line technology (commonly referred to as xDSL), including ADSL (asymmetric digital subscriber line), HDSL (high-speed digital subscriber line), UDSL (universal digital subscriber line), VDSL (very-high speed digital subscriber line), and RADSL (rate-adaptive digital subscriber line).[20] Staff Ex. 4 (Koch Direct) at 8-9. Because the quality and strength of voice and data signals transmitted over a copper

[18] Advanced telecommunications services are defined in the Illinois Public Utilities Act ("PUA") as being services that are capable of supporting a speed in excess of 200 kilobits per second ("kbps") to the network demarcation point at the subscriber's premises. 220 ILCS 5/13-517(c).

[19] *Deployment of Wireline Services Offering Advanced Telecommunications Capabilities and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order, CC Docket No. 98-147, Fourth Report and Order, CC Docket No. 96-98, FCC 99-355, at para. 1 fn. 2 (rel. Dec. 9, 1999) ("*Line Sharing Order*").

[20] See *In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Second Report and Order, FCC 99-330 at para. 1, fn. 2 (rel. Nov. 9, 1999).

loop decrease as the overall length of the loop increases, loops longer than 18,000 feet generally require some form of loop extending technology to maintain a signal at acceptable levels. Id. at 9. Although traditional digital loop carriers ("DLCs") and line extenders allow for voice grade service to be provisioned on loops longer than 18,000 feet, they do not allow for xDSL advanced services to be provisioned over such loops. Id. However, xDSL based advanced services can be provisioned to customers located more than 18,000 feet from a central office by utilization of NGDLCs and fiber feeder cable. Id. at 9-10.

TELRIC Principles Applicable to Loop Design

Although it is not within the scope of this proceeding to determine the costs of provisioning advanced services, determination of the most efficient, forward looking loop design necessarily involves some consideration of whether and how the loop design incorporated into LoopCAT accommodates the provisioning of advanced services. The Federal Communications Commission ("FCC"), in its consideration of forward looking cost models to be used to compute universal service support, has stated that "[t]he loop design incorporated into a forward looking economic cost study or model should not impede the provision of advanced services."[21] In a subsequent universal service support order, the FCC further explained that the issue is "whether the models use the least-cost, most efficient, and reasonable technology while not impeding the provision of advanced services."[22] Although the FCC has made clear that its pronouncements

[21] *In the Matter of Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, FCC 97-157 at paras. 206, 250 (rel. May 8, 1997) ("Universal Service First Report and Order").

[22] *In the Matter of Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45; 97-160, Fifth Report And Order, FCC 98- (continued…)

regarding universal service cost models were not intended to provide any systematic guidance to states in the area of TELRIC rate-setting,[23] it cannot be disputed that one of the fundamental goals of the 1996 Act is the promotion of innovation, investment and competition in the advanced services marketplace. *See* Joint Statement of Managers, S. Conf. Rep. No. 104-230, 104th Cong. 2d Sess. 1 (1996). Therefore, it is reasonable to consider whether the loop design incorporated into LoopCAT is the least-cost, most efficient, and reasonable technology while not impeding the provision of advanced services. While SBCI's loop design does not impede the provision of advanced services, it is not – as shown below – the least-cost, most efficient, and reasonable design by which to accomplish this goal.

SBCI's Loop Design

The 12,000 feet crossover point incorporated by SBCI into its LoopCAT model results in a loop design that does not allow the copper portion of any loop to exceed 12,000 feet. Id. at 10. Thus, loops longer than 12,000 feet are designed in LoopCAT to include fiber feeder cable and a NGDLC located at the Remote Terminal ("RT"). Id. at 10-11. Because NGDLCs are capable of being used to provide advanced services, SBCI's loop design does not impede the provision of advanced services. Id. However, it should be noted that the loop design incorporated by SBCI into LoopCAT does not include the additional equipment necessary to provide a data signal transmission path from the RT to the central office. Id. at 11. Thus, the hypothetical loops designed by the Company in LoopCAT cannot be used to provision advanced services. The general

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279 at para. 68 (rel. October 28, 1998) ("Universal Service Firth Report And Order").

[23] TELRIC NPRM at para. 46.

upgrades to provide advanced services over the loops modeled by SBCI in LoopCAT include advanced line cards, channel banks to house the advanced line cards, and a return path from the RT to the central office for the data signal. Id. at 12.

Compliance of SBCI's Loop Design With TELRIC

The loop design incorporated by SBCI into LoopCAT is not TELRIC compliant because the modeling assumption that the copper portion of the loop will not exceed 12,000 feet is inefficient and imprudent. Id. at 13. Loops designed with an 18,000 foot crossover point are sufficient to provision advanced services. Id.; Staff Ex. 10 (Green Direct) at 16. Thus, although neither the 12,000 foot nor the 18,000 foot crossover points impede the provisioning of advanced services, use of the 12,000 foot crossover point significantly increases the number of NGDLCs provisioned in the hypothetical network and increases the overall costs per loop. Staff Ex. 4 (Koch Direct) at 13. Staff witness Mr. Koch testified that SBCI does not, according to its response to a Staff data request, apply a 12,000 feet limitation as a strict rule for its actual network. Id. at 15. Thus, SBCI's current practices do not support the 12,000 foot crossover point advanced for purposes of its LoopCAT model, and support Staff's view that a 12,000 foot crossover point is not a an efficient or reasonable forward looking design. Accordingly, Staff recommends that LoopCAT be altered so that an 18,000 foot crossover point is used in the network design. Id. at 19.[24]

[24] Staff discovered, in attempting to make its recommended crossover point modification to LoopCAT, that LoopCAT is not easily manipulated to make this change. This task required both significant modifications to the model, as well as significant modifications to the data fed into the model. Staff Ex 4 (Koch Direct) at 19. Indeed, in response to a Staff data request, SBCI declined to run LoopCAT with an 18,000 foot crossover point, but did provide the data necessary for Staff to modify LoopCAT. Id. at 1-20. The FCC has made clear that a forward looking "cost study or model must include the capability to examine and modify the critical assumptions and engineering principles." Universal Service First Report and Order at para. 250(9). While Staff was ultimately able to make these (continued…)

Staff conducted a sensitivity analysis of the TELRIC costs developed by LoopCAT for a 2 wire analog loop to assess the impact of using an 18,000 foot crossover instead of a 12,000 foot crossover. Id. at 20-21. Staff's sensitivity analysis shows that use of a 12,000 foot crossover point (without adjusting for any other proposed modifications) produced UNE loop rates for Access Areas A, B, and C that were 1.14%, 13.53% and 5.03% higher, respectively, than the UNE loop rates developed with an 18,000 foot crossover point. Id. Staff witness Mr. Koch observed that two factors served to offset the overall amount of savings resulting from the lower number of NGDLCs with an 18,000 foot crossover point. First, as would be expected, reliance on cooper feeder cable instead of fiber feeder cable causes feeder cable costs to increase. Id. at 21-22. Second, LoopCAT was designed to automatically change the gauge of copper cable when the crossover point is changed from 12,000 to 18,000 feet. Id. at 22. Specifically, the percent of total copper placement designed with thicker -- and more expensive -- 24 gauge copper cable increases in LoopCAT when using a crossover point of 18,000 feet instead of 12,000 feet. Id. at 22-23. As noted in Section III.C.7.c) below, the Commission's decision with respect to certain CLECs' argument that the 900 ohm standard is inappropriate would lower the amount of 24 gauge cable modeled with an 18,000 foot crossover point and further increase the cost savings. Staff Ex. 24 (Koch Rebuttal to SBCI) at 13-14.

(continued from previous page)
modifications and LoopCAT generally provides the capability to modify underlying assumptions and inputs, Staff recommends that the Commission direct SBCI to make reasonable efforts to remedy this specific shortcoming before making any further filings utilizing LoopCAT. Further, while Staff was able to modify LoopCAT to develop costs based on an 18,000 foot crossover point, the complexity of this task made it impractical for Staff to run the model at varying crossover points between 12,000 and 18,000 feet to determine the most efficient mix of fiber and copper feeder. Staff Ex. 4 (Koch Direct) at 22.

In rebuttal testimony, SBCI witness Mr. Smallwood asserted that a 12,000 foot crossover point does not inappropriately inflate the number of RTs included in LoopCAT. SBCI Ex. 4.1 (Smallwood Rebuttal) at 20-21. Mr. Smallwood does not dispute Staff's assertion that setting the crossover point at 12,000 feet instead of 18,000 feet results in a network with more RT equipment and produces higher costs. Id.; *see also* Staff Ex. 24 (Koch Rebuttal to SBCI) at 9. Nor does Mr. Smallwood dispute Staff's assertion that use of an 18,000 foot crossover point produces a network design capable of provisioning the services that SBCI plans to offer for the foreseeable future. Id. Rather, Mr. Smallwood's claim is that Staff's view on the proper breakpoint focuses only on xDSL advanced services. SBCI Ex. 4.1 (Smallwood Rebuttal) at 20-21. Mr. Smallwood did not assert that Staff's crossover point would impede advanced services; rather, Mr. Smallwood simply relies on the generalized assertion that "SBC's engineers have determined that the most appropriate forward-looking design standard" is to employ a 12,000 foot crossover point. Id. at 21. Staff's view continues to be that SBCI's assertion as to an efficient, forward looking design is contradicted by its real world conduct in terms of actual deployment and the advanced services that it intends to offer. Staff Ex. 24 (Koch Rebuttal to SBCI) at 10.

In rebuttal, SBCI witness Mr. Smallwood also notes that the FCC staff, serving as arbitrators in a Verizon Virginia proceeding[25] (hereafter "Virginia Arbitration Rate

[25] *In the Matter of Petition of WorldCom, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration*, CC Docket No. 00-218; and *In the Matter of Petition of AT&T Communications of Virginia Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc.*, CC Docket No. 00-251, Memorandum Opinion and Order, DA 03-2738 (Rel. August 29, 2003) (hereafter "Virginia Arbitration Rate Order")

Order"), adopted a 12,000 foot crossover point in that proceeding. SBCI Exhibit 4.1 (Smallwood Rebuttal) at 21- 22; Virginia Arbitration Rate Order at paras. 241-242. Mr. Smallwood's comments were in response to Staff witness Mr. Koch's testimony noting that the FCC, in its Universal Service Fifth Report And Order,[26] adopted an 18,000 foot crossover point in connection with a forward looking cost model used to determine universal service support. Staff Ex. 4 (Koch Direct) at 13-14. There should be no question that neither of these orders limits the Commission's ability in this proceeding to make a determination on the merits based on the evidence presented. As noted above, the FCC's pronouncements regarding universal service cost models were not intended to provide any systematic guidance to states in the area of TELRIC rate-setting.[27] Similarly, FCC staff made clear in the Verizon Virginia arbitration proceeding that its "application of existing [FCC] rules [was] narrowly tailored to the detailed evidence in the record before [it] in order to resolve the numerous specific issues presented by the parties regarding their operations in Virginia." Virginia Arbitration Rate Order at para. 3. Moreover, the Virginia Arbitration Rate Order explicitly states its authority in the proceeding as follows:

> In this proceeding, the Bureau, acting through authority expressly delegated by the Commission, stands in the stead of the Virginia State Corporation Commission (Virginia Commission) for the limited purpose of this arbitration.

Virginia Arbitration Rate Order at para. 2.

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[26] *In the Matter of Federal-State Joint Board on Universal Service; Forward-Looking Mechanism for High Cost Support for Non-Rural LECs*, CC Docket Nos. 96-45; 97-160, Fifth Report And Order, FCC 98-279 at para. 270 (rel. October 28, 1998) ("Universal Service Fifth Report And Order")

[27] TELRIC NPRM at para. 46.

Accordingly, the Virginia Arbitration Rate Order presents findings by the FCC Wireline Competition Bureau, and not the Commission itself, for the sole purpose of settling an arbitration dispute in the State of Virginia based on the evidence presented in that proceeding. As such, this order is not binding on all of the states. Staff also notes that whereas Verizon Virginia apparently presented evidence of applicable guidelines calling for a 12,000 foot breakpoint, no such evidence has been presented here. *See* Virginia Arbitration Rate Order at para. 241. Further, the order only speaks to evidence presented concerning Verizon Virginia's network design, whose characteristics are undoubtedly not identical to those of SBCI. The decision on what the proper crossover point should be for the modeled network must be based on the planned capabilities of the actual network in order to be considered TELRIC compliant. Staff Ex. 24 (Koch Rebuttal to SBCI) at 13. Staff can find no specific references to the planned capabilities of the actual Verizon Virginia network in the entire discussion of the fiber-copper crossover point in the Virginia Memorandum Opinion and Order. *See* Virginia Memorandum Opinion and Order at paras. 238-242. The evidence presented here, however, clearly shows that an 18kft copper-fiber crossover point is a more appropriate network design for SBCI.

3. Other DLC Investment Cost Issues

a) Remote Terminal Cabinet Sizes

In addition to designing a network that includes too many NGDLCs as discussed in Section III.C.2 above, the LoopCAT model exacerbates this problem by allowing for a very limited number of Remote Terminal ("RT") cabinet sizes to house the NGDLCs – which results in an even more inefficient network design that unnecessarily inflates per

loop costs. Staff witness Mr. Koch testified that although there are ten sizes of RT cabinets available form SBCI's vendor, SBCI's original LoopCAT model only included the two largest cabinet sizes. Staff Ex. 4 (Koch Direct) at 14. Because the larger size cabinets cost more than the smaller size cabinets, LoopCAT's incorporation of what is essentially a "one size fits all" network design is likely to needlessly inflate per loop costs because LoopCAT automatically incorporates the higher costs of a large cabinet even if a smaller and less expensive cabinet would meet applicable capacity requirements. Id. at 14-15. At the time of Staff's direct testimony, however, Staff was not aware of any means to adjust or modify LoopCAT to reflect the eight additional cabinet sizes discussed above. Id. at 15.

In rebuttal testimony, the Company argued that it would be inefficient to maintain ten different sizes of RT cabinets in inventory. SBCI Ex. 4.1 (Smallwood Rebuttal) at 76. The Company also argued that smaller RT cabinets are more expensive on a per-unit of capacity basis and therefore a less efficient choice in LoopCAT. Id. at 76. Finally, the Company argued that the number of smaller cabinets that would be efficient to deploy on a line count basis would be so small that including additional size cabinets would have no significant effect on SBCI's cost studies. Id. at 76. Notwithstanding these concerns, SBCI's revised LoopCAT study supporting its rebuttal testimony incorporated one additional smaller RT cabinet size and use of controlled environmental vaults ("CEVs") to address Staff's concern that SBCI did not include eight of the ten available sizes of RT cabinets in its cost studies. Id. at 75-76. Although SBCI's revisions to LoopCAT move in the right direction, the Company's arguments in response

to Staff's criticism lack merit and SBCI should be ordered to conduct sensitivity analysis and incorporate the lest cost mix of RT cabinets in its final loop cost development.

SBCI witness Mr. Smallwood supports the Company's argument that it would be inefficient to maintain ten different sizes of RT cabinets in inventory by contending that this would require development of ten sets of engineering specifications. SBCI Ex. 4.1 (Smallwood Rebuttal) at 76. While the asserted need for different engineering specifications sounds plausible, Mr. Smallwood provides no support for his implied assumption that such requirements would result in any increase in overall costs. *See* Staff Ex. 24 (Koch Rebuttal to SBCI) at 5-6. Moreover, it is very unlikely that such engineering costs would be significant in the TELRIC context of building an efficient network today from the ground up. Id. Finally, although is it unclear why Mr. Smallwood links his allegations of inefficiency to maintaining various cabinet sizes in *inventory*, Mr. Smallwood indicated on cross that RT cabinets are not generally maintained in inventory but rather are "ordered to be deployed in upcoming construction jobs." Tr. at 788.

The Company's argument that the cost per unit of capacity for smaller RT cabinets is higher than for the larger RT cabinets included in LoopCAT is misplaced because it is the per loop cost that is relevant in determining the most efficient, forward looking design. *See* Staff Ex. 24 (Koch Rebuttal to SBCI) at 4. As long as the smaller size RT is less expensive than the larger size RT (and both RTs are capable of meeting applicable capacity requirements), the effect of using a smaller RT is that less cost is distributed over the same customer base and the cost per customer decreases. Id. at 4-5. This concept was effectively demonstrated by Mr. Koch's vehicle analogy.

Although the cost per unit of capacity of a bus may be lower than the cost per unit of capacity of a car (i.e., dividing each vehicle's cost by its seating capacity), the bus is not the most efficient choice for a family because a car will serve a family's capacity requirements at a lower cost. Id. at 5. Similarly, smaller RT cabinets are the more efficient choice for RTs designed to serve more limited capacity requirements. By excluding these smaller cabinet sizes, LoopCAT avoids the efficiencies that can be gained by better matching equipment capacity with the capacity requirements incorporated into LoopCAT.

The Company's argument that including additional cabinet sizes in LoopCAT would have no significant effect on its cost studies is simply unsupported. SBCI witness Mr. Smallwood did not present any cost evidence based on a LoopCAT run including the ten sizes of RT cabinets that are available. See SBCI Ex. 4.1 (Smallwood Rebuttal) at 75-76. As such, Mr. Smallwood is simply speculating when he contends that there are no significant savings to be gained. Moreover, Mr. Smallwood's assertion is belied by SBCI's revised LoopCAT study. Staff witness Mr. Koch established that SBCI's decision to double the available RT equipment choices in its revised LoopCAT study produced RT equipment costs for 2 wire analog loops for Access Areas A, B, and C that were, respectively, 15.27%, 30.13% and 31.63% lower than the costs developed in its initial filing.[28] Id. at 6-7. These results squarely contradict Mr. Smallwood's assertion that adding additional cabinet sizes will not produce significant savings.

[28] AT&T witnesses Messrs. Pitkin and Turner asserted that the inclusion of additional RT equipment in SBCI's revised LoopCAT study submitted in rebuttal increased the costs per line. AT&T Ex. 2.1 at 51-54. Staff disagrees strongly with these unsupported assertions which are contrary to the evidence that RT equipment costs actually decreased. Staff Ex. 33 (Koch Surrebuttal) at 15-17.

SBCI's rebuttal filing and revised LoopCAT study make clear that LoopCAT can be modified to include additional RT cabinet sizes. Staff Ex. 24 (Koch Rebuttal to SBCI) at 7-8. It is also clear that substantial cost reductions were obtained by adding two additional RT equipment choices. Therefore, Staff recommends that the Commission require SBCI to produce LoopCAT runs for all of its loop types in all access areas to determine the impact of including each of the RT cabinet types currently excluded, and to use the least cost mix of RT cabinets in its final loop cost development. Id.

b) Alcatel Discounts

Staff briefly discussed the fact that failure to include certain discounts in LoopCAT was raised by certain parties as an issue, but Staff did not take a definitive position on this issue in testimony. See Staff Ex. 16 (Koch Rebuttal to CLECs) at 2-3. Staff's position has not changed, but it reserves the right to respond to any arguments raised in the parties' initial briefs.

c) Mix of Universal Digital Loop Carrier ("UDLC") and Integrated Digital Loop Carrier ("IDLC") facilities

Staff briefly discussed the fact that the mix of UDLC and IDLC facilities was raised by certain parties as an issue, but Staff did not take a definitive position on this issue in testimony. See Staff Ex. 16 (Koch Rebuttal to CLECs) at 2-3. Staff's position has not changed, but it reserves the right to respond to any arguments raised in the parties' initial briefs.

d) Number of Remote Terminals Per COT

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

e) Calculation and Application of Building Cost Factor

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

f) Allocation of Shared DLC Components

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

g) Remote Terminal Investment Cost Allocation

It has long been established that cost causation principles apply to the TELRIC methodology.[29] Cost causation principles dictate that the TELRIC of a loop should include only those costs necessary for provisioning of the UNE loop, with costs for shared equipment apportioned directly to a network element if possible. *See* Local Competition Order at para. 691, 695; Staff Ex. 4 (Koch Direct) at 7, 16. If the utilization of a particular network component is such that it is shared for the provisioning of distinct UNEs, then the charge for each of those UNEs should only recover costs for the pro-rata portion of the component utilized by each UNE to the extent that an allocation can

[29] *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket Nos. 96-98 and 95-185, First Report and Order, FCC 96-325 at para. 691 (rel. Aug. 8, 1996) ("*Local Competition Order" or* "First Report and Order") ("Costs must be attributed on a cost-causative basis.")

be made. Staff Ex. 4 (Koch Direct) at 16. The Remote Terminal NGDLCs modeled in LoopCAT are -- as explained in Section III.C.2 above -- capable of providing advanced services, but not equipped to do so. Id. at 16-17. The relevant point, however, is that the NGDLCs modeled by LoopCAT are capable of providing advanced services if properly equipped. Id. Indeed, this very capability is the justification for designing loops exceeding the crossover point with fiber feeder cable and NGDLCs. Thus, it is clear that LoopCAT models loops with equipment that will also be used (i.e., shared) for the provision of UNE loops and SBCI's Broadband UNE. Id. Specifically, those UNEs both utilize or share the facilities from the DLC cabinet to the network interface device. Id. at 17.

In the proceeding establishing rates for SBCI's Broadband UNE (Docket No. 00-0393), SBCI presented cost information indicating that 25% of the DLC cabinet facility is apportioned to the broadband offering and 75% to its voice grade offering. Id. at 17. The LoopCAT model, on the other hand, apportions 100% of the DLC cabinet costs to the UNE Loop and therefore causes double recovery of cabinet costs. Id. The shared facilities between the DLC cabinet and the network interface device do not pose a double recovery problem because the cost of those facilities was set at zero for purposes of SBCI's Broadband UNE. Id. at 17-18. Similarly, all copper loops do not present the same issue because those loops, as modeled in LoopCAT, are capable of provisioning services and thus do not present a shared equipment scenario. Id. at 18. Accordingly, Staff recommends that 25% of the DLC-RT cabinet investment be removed from LoopCAT.[30] Id. at 19.

[30] Certain CLEC witnesses proposed similar adjustments. See Staff Ex 16 (Koch Rebuttal to (continued…)

In rebuttal, SBCI witness Mr. Smallwood argued that it is appropriate to assign 100% of the investment in RT equipment modeled in LoopCAT to UNE loops because the RT equipment is only configured to provide voice grade services in LoopCAT, additional investment would be required to support data services, and xDSL functionality is incremental in nature. SBCI Ex. 4.1 (Smallwood Rebuttal) at 83-84. As is clear from the previous discussion of Staff's position, these factors have been taken into account by Staff. Mr. Smallwood's arguments do nothing to address the fact that SBCI is attributing investment common to both voice and data entirely to UNE loop costs. Staff Ex. 24 (Koch Rebuttal to SBCI) at 15. Without the adjustment proposed by Staff, SBCI's UNE loop rates would result in double recovery. Accordingly, Staff continues to recommend that the Commission reduce SBCI's RT investment by 25% to properly allocate these costs. Id. at 15-16.

4. Premises Termination Costs

Staff adjusts SBCI's premises termination costs to reflect Staff witness Lazare's reduction to the Company's labor time estimates for NID and drop wire installation costs (discussed in Section III.C.4.a) below) and Staff's proposed modifications to SBCI's capital cost factor (discussed in Section VI below) which flow into the calculation of labor rates. *See* Staff Ex. 5 (Staranczak Adopting Liu Direct) at 6, 30-33; Staff Ex. 22 (Staranczak Rebuttal to SBC), pp. 31, 41-42. Although the capital cost factor and labor rates are discussed elsewhere in this brief, they are necessary adjustments that must be included in the Commission's final determination of premises termination costs.

(continued from previous page)
CLECs) at 2-3.

Similarly, Staff witness Lazare's adjustment to the Company's labor time estimate flows into the calculation of distribution terminal costs. Staff Ex. 5 (Staranczak Adopting Liu Direct) at 32-33. However, distribution terminal costs are no longer at issue because SBCI removed distribution terminal investment costs from LoopCAT after discovering those costs were being aggregated in cable accounts and therefore being double counted. Staff Ex. 22 (Staranczak Rebuttal to SBC), pp. 31, 41-42.

a) NID and Drop Wire Installation costs (Including Travel Times)

As noted in Section I.C.1.d) above, SBCI uses a factor-based approach to develop premises termination costs (as for cabling and Remote DLC costs); however, the approach to the premises termination component of the loop differs because SBCI starts with the installation costs and then develops a factor for the cost of materials. Staff Ex. 3 (Lazare Direct) at 30. Also, while the factors developed for cable and DLC equipment were based on actual expenditures, premises termination labor costs are based on subject matter expert ("SME") estimates of installation times multiplied by a unit labor factor. Id. Staff's concern[31] lies with one aspect of the SME estimate for installation times, specifically the SME estimate for travel time between installations. Id. at 30-31. Staff witness Mr. Lazare testified that this estimate incorrectly assumes that an installer must travel roundtrip from the Company's shop to an end user's premises for each service connection. Id. at 31. A more reasonable assumption – as well as the efficient network design and construction assumption required by TELRIC – is that an

[31] Staff also questioned the Company's failure to take into consideration the impact of multi-family dwellings on NID costs. As discussed in Section III.C.10.e) of this brief, this concern has been addressed by the Company.

installer involved in network construction could proceed directly from one end user's premises to the next without having to return to the Company's facilities prior to the end of the day. Id. at 31-32. Accordingly, Staff developed revised travel time estimates based on one ***BEGIN CONF xxxxxxxxx END CONF*** roundtrip between the Company's facilities and an installation area, with shorter travel times from one end user's premises to the next. Id. at 31-33. Staff recommends that these revised installation time estimates be used to develop premises termination costs.

In rebuttal testimony, SBCI witness Mr. Smallwood offered additional support for the travel times included in LoopCAT. SBCI Ex. 4.1 (Smallwood Rebuttal) at 86. Although not disclosed by Mr. Smallwood or the Company in responding to Staff's data request seeking all support relied upon by the Company for its travel time estimate, Mr. Smallwood claimed in rebuttal that SBCI's travel time estimate (i) was not reflective of a roundtrip for each installation and (ii) includes non-travel time items such as setting up work area protection and contacting the customer. Id.; *see* Staff Ex. 23 (Lazare Rebuttal) at 12-13.

Even with this additional information, SBCI's estimated travel times are clearly overstated. First, the Company's travel time estimate assumes that a technician installs a total of two drops per day. Considering that even SBCI's total labor estimate per drop is under two hours, it is inefficient (and requires more round trips) to assume only two installations per day. Staff Ex. 23 (Lazare Rebuttal) at 12-13. Second, the Company fails to quantify the time allotted to these newly advanced non-travel activities. Third, the contribution of these items to the Company's time estimate is questionable at best since they were not mentioned in response to Staff's data request seeking all support

for this time estimate. Id. at 13-14. Furthermore, the Company's new support is suspect on its face. While now advancing customer contacts as a component of its time estimate, SBCI does not explain why its installers could not contact customers by cell phone while traveling from the shop or from one worksite to the next. Id. Finally, SBCI witness Mr. White's testimony that SBCI installers rarely install drops in the same neighborhood ignores that the task at hand under TELRIC is to derive the costs of installing a new network today, not the costs of installing additional service drops in an existing network. SBCI Ex. 8.1 (White Rebuttal) at 17; Staff Ex. 23 (Lazare Rebuttal) at 15-16.

Accordingly, the new arguments advanced by the Company do not rebut Staff's analysis showing that the Company's estimated travel times are overstated and do not reflect the costs of an efficient, forward looking carrier. Id. at 13-15. Staff continues to recommend that its revised installation time estimates be used to develop premises termination costs.

b) Adjustment to Remove Double-Counting

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

c) Mix of Aerial and Buried Premises Termination

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

d) Multiple Dwelling Units

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs. Staff did address a related issue regarding the mix of residential and business premises terminations, which issue was resolved by modifications to LoopCAT made during the course of this proceeding. *See* Section III.C.10.e) below.

5. FDI Costs

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

6. Distribution Area Modeling

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

7. Loop Length, Cable Size and Cable Gauge Modeling

a) Distribution Lengths Over 18,000 feet

Staff briefly discussed the fact that loop lengths over 18,000 feet was raised by certain parties as an issue, but Staff did not take a definitive position on this issue in testimony. See Staff Ex. 16 (Koch Rebuttal to CLECs) at 3-4. Staff's position has not changed, but it reserves the right to respond to any arguments raised in the parties' initial briefs.

b) Data Used to Develop Loop Lengths

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

c) Distribution Cable Resistance Limits

Staff briefly discussed the fact that the issue of cable resistance limits was raised by certain parties as an issue, but Staff did not take a definitive position on this issue in testimony. See Staff Ex. 16 (Koch Rebuttal to CLECs) at 3-4. Staff's position has not changed, but it reserves the right to respond to any arguments raised in the parties' initial briefs. Staff does note, however, that changing the ohms' standards incorporated into LoopCAT would change the gauge of copper cable utilized in LoopCAT so as to reduce the costs (and increase the cost savings) of switching from a 12,000 foot to an 18,000 foot crossover point. Id. at 4-5; Staff Ex. 24 (Koch Rebuttal to SBCI) at 13-14; *see also* Section III.C.2 above. Thus, Staff notes as a practical matter that resolution of this issue will further increase the need for a new LoopCAT run if a different ohms' standard is adopted by the Commission.

d) Allocation of Copper Cable Inventory Between Feeder and Distribution Plant

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

e) Copper Cable Mix

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

f) Cable Sizing

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

8. Planning Period

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

9. Previous Methodologies

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

10. Agreed Upon Issues

a) Controlled Environmental Vaults

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

b) Feeder Stubs

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

c) Adjustment to Remove Double-Counting of Distribution Terminal Costs

Staff briefly discussed the fact that SBCI made an adjustment to remove double counting of distribution terminal costs, and this resolved another issue that was addressed by Staff. See Staff Ex. 22 (Staranczak Rebuttal to SBC), pp. 31, 41-42. Staff's position has not changed, but it reserves the right to respond to any arguments raised in the parties' initial briefs.

d) Building Entrance Facilities

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

e) Mix of Residential and Business Premises Terminations

SBCI's original LoopCAT study assumed that residential customers are always served by a Network Interface Device ("NID")/Buried Drop Wire configuration (with a capacity of 6 pairs) even though some fraction of residential customers reside in multiple dwelling units (e.g., apartment buildings and condominiums) at which larger terminals could be deployed to reduce the unit cost per pair. Staff Ex. 7 (Zolnierek Direct) at 72-76; Staff Ex. 19 (Zolnierek Rebuttal to CLECs) at 17-23. Because LoopCAT included larger terminals in developing costs for business customers, Staff recommended adjusting the mix of residential and business premises terminations in LoopCAT so that a fraction of the residential customers would be modeled as though the customers were business customers. Id. SBCI's rebuttal filing and revised

LoopCAT study estimates premises termination costs assuming, based on census information, that ***BEGIN CONF xxxxxxxxxxxxxx END CONF*** of residential consumers are served, respectively, by 25 and 50 pair wire apparatus/wire protectors. Staff Ex. 27 (Zolnierek Rebuttal to SBCI) at 47-49. As a result of SBCI's revision to its LoopCAT study, Staff withdrew its recommendation to adjust the mix of residential and business premises termination in LoopCAT. Id.

f) Non-Chicago Sales Tax

The sales tax rate is one factor that impacts the level of capital costs in LoopCAT because the costs of material and equipment are multiplied by the applicable sales tax rate to develop total capital costs. Staff Ex. 3 (Lazare Direct) at 34. Staff witness Mr. Lazare testified that the sales tax rate originally input into LoopCAT was the sales tax rate for the City of Chicago, whereas SBCI's service territory extends beyond the City of Chicago and the Chicago sales tax rate overstates the actual sales tax rates experienced by SBCI for its network purchases. Id. at 34-35. Staff recommended that LoopCAT utilize the average sales tax rate of ***BEGIN CONF xxxxx END CONF*** reported by SBCI in response to a Staff data request. Id. at 35. Although the sales tax rate issue was not expressly addressed in the Company's written rebuttal testimony, the Company's revised cost studies supporting its rebuttal testimony incorporated a reduced sales tax rate of 6.75%. Staff Ex. 23 (Lazare Rebuttal) at 3-4. Although this revised sales tax rate was not exactly the same as the sales tax rate proposed in Staff's direct testimony, Staff witness Mr. Lazare found this revised tax rate acceptable for developing UNE rates because it addressed the Chicago/non-Chicago issue identified

in direct testimony and was based on more widespread data than was available to Mr. Lazare for his direct testimony. Id. at 4.

IV. Non-Recurring Cost Studies And Rate Designs

A. General Issues

Non-recurring charges (hereafter "NRCs") are one-time charges that a CLEC incurs for use of an ILEC's network. CLEC's may use that network for end users migrating their existing service to a CLEC or establishing a new service with a CLEC. Staff Ex. 6.0 at 4. Examples of NRCs are service order changes, loop connection services, and services associated with connecting to the switch. Id. NRCs are also incurred in connection with certain changes to an end user's service, such as when adding "Caller ID" or some other central office feature to an existing account. Id.

In this proceeding, SBC is proposing very significant rate increases[32] for many of its NRCs. Staff Ex. 6.0 at 4-5. Many of the non-recurring rates proposed by SBC are overstated. Many are also inadequately supported, especially as noted generally in section IV.A.4 herein, and in associated sections. Staff will identify the defects and deficiencies in SBC cost estimates that cause its non-recurring rates to be overstated, and will propose alternative costs and rates based on correcting those defects and deficiencies.

[32] SBC proposes to increase certain of its NRCs as much as 1,644%. *See* Staff Ex. 6.0 at 5.

1. TELRIC Standards/Principles

An ILEC's NRCs must satisfy TELRIC rules in precisely the same way as its recurring rates. *See, generally,* 47 C.F.R. §51.505(e) (all charges must comply with TELRIC); *see also* First Report and Order, ¶¶743-748.

Further, with respect to TELRIC compliant rate design, FCC rules provide that:

> (a) Element rates shall be structured consistently with the manner in which the costs of providing the elements are incurred.
>
> …
>
> (d) Recurring costs shall be recovered through recurring charges, unless an incumbent LEC proves to a state commission that such recurring costs are de minimis. Recurring costs shall be considered de minimis when the costs of administering the recurring charge would be excessive in relation to the amount of the recurring costs.
>
> (e) State commissions may, where reasonable, require incumbent LECs to recover nonrecurring costs through recurring charges over a reasonable period of time. Nonrecurring charges shall be allocated efficiently among requesting telecommunications carriers, and shall not permit an incumbent LEC to recover more than the total forward-looking economic cost of providing the applicable element.
>
> 47 C.F.R. §51.507(a, d-e)

The FCC, in its *First Report and Order*, provided further guidance regarding the allocation of NRCs, as follows:

> 743. **We conclude, as a general rule, that incumbent LECs' rates for interconnection and unbundled elements must recover costs in a manner that reflects the way they are incurred.** This will conform to the 1996 Act's requirement that rates be cost-based, ensure requesting carriers have the fight incentives to construct and use public network facilities efficiently, and prevent incumbent LECs from inefficiently raising costs in order to deter entry. We note that this conclusion should facilitate competition on a reasonable and efficient basis by all firms in the industry by establishing prices for interconnection and unbundled elements based on costs similar to those incurred by the incumbents, which may be expected to reduce the regulatory burdens and economic impact of our decision for many parties, including both small entities

seeking to enter the local exchange markets and small incumbent LECs. We also adopt some more specific rules that follow from this general rule.

...

745. Second, if we apply our general rule that costs should be recovered in a manner that reflects the way they are incurred, then **recurring costs must be recovered through recurring charges, rather than through a nonrecurring charge.** A recurring cost is one incurred periodically over time. **A LEC may not recover recurring costs such as income taxes, maintenance expenses, and administrative expenses through a nonrecurring charge because these are costs that are incurred in connection with the asset over time.** For example, we determine that maintenance expenses relating to the local loop must be recovered through the recurring loop charge, rather than through a nonrecurring charge imposed upon the entrant.

746. **We find that recovering a recurring cost through a nonrecurring charge would be unjust and unreasonable** because it is unlikely that incumbent LECs will be able to calculate properly the present value of recurring costs. To calculate properly the present value of recurring costs, an incumbent LEC would have to project accurately the duration, level, and frequency of the recurring costs and estimate properly its overall cost of capital. We find that, in practice, the present value of the recurring costs cannot be calculated with sufficient accuracy to warrant up-front recovery of these costs because incumbent LECs lack sufficient experience with the provision of interconnection and unbundled rate elements. Without sufficient experience, incumbent LECs are unable to project the length of time that an average entrant would interconnect with, or take an unbundled element from, the incumbent LEC, or how expenses associated with interconnection and unbundled rate elements would change over time. In contrast, a recurring charge for a recurring cost would ensure that a customer is only charged for the costs the entrant incurs while that entrant is taking interconnection service or unbundled rate elements from the incumbent LEC. **Moreover, when costs associated with the interconnection and particular unbundled rate elements change, the incumbent LEC can make appropriate adjustments to the charges at the time such cost changes occur.**

747. **Accordingly, we find that imposing nonrecurring charges for recurring costs could pose a barrier to entry because these charges may be excessive, reflecting costs that may (1) not actually occur; (2) be incurred later than predicted; (3) not be incurred for as long as predicted; (4) be incurred at a level that is lower than predicted; (5) be incurred less frequently than predicted;**

and (6) be discounted to the present using a cost of capital that is too low.

748. Notwithstanding the foregoing, where recurring costs are de minimis, **we will permit incumbent LECs to recover such costs through nonrecurring charges. We find that recurring costs are de minimis where the costs of administering the recurring charge would be excessive in relation to the amount of the recurring costs**.

First Report and Order, ¶¶743, 746-48 (notes omitted, emphasis added)

It is clear from the foregoing that the FCC has concluded that recovering recurring costs through non-recurring rates is inappropriate except in situations where the impact is *de minimis*. Staff Ex. 26.0 at 3. The FCC found that non-recurring costs can, under certain circumstances, be recovered through recurring charges where reasonable. Id. at 4. The only reasonable conclusion that can be reached from the rules and the relevant passages of the *First Report and Order* is that the FCC regards improper recovery of recurring costs through non-recurring charges as a more serious problem, and a markedly worse form of rate design, than recovering non-recurring costs through recurring rates. Id. Ideally, rates should be properly designed to recover the types of costs underlying the rates. 47 C.F.R. §51.707(a), First Report and Order, ¶743. But if that cannot be achieved, the FCC clearly favors recovering costs through *recurring* rates. Staff Ex. 26.0 at 4; *see also* 47 C.F.R. 51.507(a, d-e); First Report and Order, ¶¶ 743-748.

2. Cost Causation and Characterization of Costs

As noted elsewhere herein, *see* Section VI.F, SBC's use of the SAF is improper. Moreover, regardless of how the costs underlying the SAF are recovered, the levels of

those costs are, in several cases, questionable at best. SBC has overestimated two categories of costs: general computer support asset expense, and the markup on the buildings and land. Staff Ex. 6.0 at 21.

In developing the general computer support asset expense factor, SBC used year 2000 expenses. Staff Ex. 6.0 at 22. These expenses are contained in ARMIS account 6124. Id. In the development of the expenses, SBC used general computer costs for the five-state SBC Midwest region. Id. When Illinois specific costs for this item from the year 2000 and the year 2001 are compared, it becomes apparent that SBC's expense in this account *decreased* by 37.5% from 2000 to 2001. Id. This is true for all five states in the former Ameritech region (Illinois, Wisconsin, Indiana, Ohio, and Michigan). Id. at 22-23. It appears that general computer expenses showed a considerable decline from 2000 to 2001. This information is neither contained nor reflected in SBC's cost studies. Id. at 23.

Most of the expenses contained in ARMIS account 6124 are labor expenses associated with providing computer support. Staff Ex. 6.0 at 23. Apparently, SBC and other SBC Midwest states reduced those labor expenses significantly after the year 2000. Id. It appears that these expenses significantly declined and, to the extent SBC attempts to recover these expenses in any manner, the company should decrease the amount to reflect reductions in those expenses, as year 2000 expense levels do not appear to be forward-looking. Id.

With respect to buildings and land, SBC's studies do not properly reflect the fact that not all of the building and land that SBC owns are used for providing regulated telecommunications services. Staff Ex. 6.0 at 23-4. Although approximately ***BEGIN

CONF xx END CONF*** of the building space used by SBC is used by unregulated affiliated companies, SBC has not made any adjustment in its costs to reflect this fact. Id. By failing to make this adjustment, SBC is overstating its costs associated with buildings and land. Id. These costs should be reduced by ***BEGIN CONF xx END CONF*** to reflect the cost of SBCI's buildings and land attributable to non-regulated activities. Id.

3. Treatment of Technology

4. Use of Subject Matter Experts

As noted above, SBC bears the burden of proof in this proceeding. With respect to estimating its non-recurring provisioning costs, SBC has chosen to meet this burden by means of a three-step approach. First, SBC's cost group developed surveys in order to solicit information from SBC provisioning subject matter experts that were not witnesses in this proceeding. *See, e.g.,* Tr. at 1404. Second, subject matter experts responded to these surveys and provided task lists used to derive SBC cost estimates for various provisioning activities. Tr. at 1147-1148. Finally, SBC's cost group witnesses (and in some instances SBC's strategic operations group witness) compiled the subject matter expert information and made adjustments to this information in order to conform SBC's estimates to TELRIC requirements. Tr. at 1140-1141.

The use of subject matter experts to determine non-recurring costs is not inherently problematic; in fact the Commission determined that it is one permissible method of undertaking this task. TELRIC Order at 93. However, the manner in which SBC has implemented it in this proceeding is. Consistent with the methodology elected

above, SBC elected, rather than presenting numerous subject matter experts, to present one cost group witness (Dr. Kent Currie, who adopted the testimony of Mr. Chris Cass) and one operational witness (Ms. Vivian Gomez-McKeon) to support numerous of its studies including, in particular, its provisioning non-recurring cost studies.

By electing to proceed in this matter, SBC took a significant risk, staking its case that these two witnesses would be able to explain a very large body of material supporting SBC's provisioning non-recurring cost studies. As became increasingly apparent in the course of this matter, these witnesses were unable and/or unwilling in many instances to provide the support necessary for the Commission to discern whether SBC's non-recurring cost studies comply with TELRIC principles.

FCC rules require the company to develop its cost considering all currently available telecommunications technology and the lowest cost network configuration given the location of SBC's existing wire centers. 47 C.F.R. § 51.505(b)(1). In its *TELRIC Order*, the Commission directed that a non-recurring cost study based upon the estimates of subject matter experts "should start with an identification and documentation of forward-looking workflows, identification of estimators, the development of detailed written estimation instructions, provisions for averaging the individual estimates, development of documentation, etc." TELRIC Order at 93.

In his direct testimony in this proceeding, Mr. Cass stated that subject matter experts were asked to identify forward-looking activities required to provision each rate element identified within the nonrecurring costs studies in a manner consistent with FCC rules. SBC Ex. 6.0 at 5-6. However, Staff identified a potential problem with

respect to SBC's nonrecurring provisioning cost estimation methodology. Specifically, Staff determined that the surveys and guidance provided to SBC's provisioning subject matter experts by its cost groups specifically and clearly directs these subject matter experts to ignore any technologies that SBC does not currently employ or that SBC has not approved for deployment in its network. Staff Ex. 7.0 (Zolnierek Direct) at 14; Tr. at 1138. Thus, the activity and time estimates that SBC directed its subject matter experts to provide will exclude currently available telecommunications technology that SBC does not specifically use or plan to use, and also will not account for network configurations that generate lower costs than does SBC's present network configuration.

SBC conceded that the estimates provided by its subject matter experts measured only the nonrecurring costs that SBC actually expects to incur, rather than those a company using the best available technology and methods might incur. SBC Ex. 5.1 (Currie Rebuttal) at 47. Therefore, Mr. Cass, when stating that subject matter experts provided forward-looking activity estimates, did not properly characterize the nature of inputs that these subject matter experts were expected to provide. Dr. Currie, however, indicated that potential problems with subject matter expert input were remedied by the fact that Ms. Gomez-McKeon had reviewed subject matter expert input and modified them where necessary to make the estimates forward looking and thus TELRIC-compliant. SBC Ex. 5.1 (Currie Rebuttal) at 47. However, this alleged remedy is deficient for two reasons. First, other SBC personnel may have made some modifications to SBC's studies and these modifications are unknown to SBC's witnesses. Second, Ms. Gomez-McKeon is, according to her testimony, unqualified to

make TELRIC adjustments to SBC's activity times and cost estimates. *See* Tr. at 1448; 1459 (Ms. Gomez-McKeon concedes that she lacks personal knowledge of the activities of all provisioning groups and activities, and further that she lacks personal knowledge regarding how rates are applied).

In cross-examination, Dr. Currie testified that Mr. Cass, like Ms. Gomez-McKeon, had reviewed nonrecurring provisioning activity times submitted by the SBC's subject matter experts in order to modify times that may not be fully forward-looking. Tr. at 1139. However, despite the fact that Dr. Currie sponsored the direct testimony of Mr. Cass, Dr. Currie conceded that he did not know what changes Mr. Cass made to SBC's nonrecurring provisioning cost studies. Tr. at 1139. Consequently, it is unknown what, if any, modifications were made to subject matter expert input, the identity of persons who made any such changes, or the magnitude of any such changes, because the witness responsible for identifying these modifications -- and, indeed, the only witness proffered to answer these questions – does not know the answers to them. Therefore, SBC's non-recurring provisioning cost studies are, to some unknown but apparently significant extent, unsupported by either an SBC witness or any subject matter expert input.

Regarding Ms. Gomez-McKeon's review of SBC's nonrecurring provisioning studies, it is unclear what information Ms. Gomez-McKeon relied on to review and make modifications to SBC's cost studies. For example, during cross-examination Ms. Gomez-McKeon testified:

> Q. So for each activity did you actually personally review each activity that you have discussed in your testimony?
>
> A. Pretty much so, yes, <u>all of them</u>.

Tr. at 1412. (emphasis added).

This topic was addressed again later in cross-examination and Ms. Gomez-McKeon testified:

Q. You went out and observed each and every one of these activities?

A. I pretty much did, yes.

Tr. at 1459.

Upon further questioning, however, Ms. Gomez-McKeon revealed that she had not in fact reviewed all activities discussed in her testimony. She testified:

Q. [I]t is your testimony here today that you observed each and every one of the activities that you are providing task type support for here today?

A. I would say all of them except the only center I did not go to was the special services, the control center, the SSC. But I pretty much went to every center and observed, yes.

Tr. at 1459.

That is, Ms. Gomez-McKeon did not review the activities of an entire SBC provisioning group --- one of the groups providing subject matter expert input used to develop SBC nonrecurring provisioning cost estimates. Again, upon further questioning, Ms. Gomez-McKeon revealed that she did not observe every activity for groups other then the SSC. She testified as follows:

Q. And you observed every single activity?

A. To take the cost study and say I went from top to bottom I could say no, I was not 100 percent to that.

Q. Okay. What percentage would you say that you did hit?

A. <u>It's hard to say</u>; in the 90s.

Tr. at 1459. (emphasis added.)

As this testimony reveals, it is unclear exactly how much of SBC's nonrecurring provisioning cost study activities Ms. Gomez-McKeon reviewed, or how much of SBC's nonrecurring provisioning cost studies were subjected to no oversight at all for the purposes of ensuring TELRIC compliance.

Furthermore, Ms. Gomez-McKeon is apparently not qualified to perform the compliance activities she was charged with performing in this proceeding. As Mr. Cass testified, one of the primary steps employed by SBC to identify nonrecurring costs was to "identify the specific forward-looking work activities and personnel required to provision the rate element." SBC Ex. 5.0 (Cass Direct) at 5. That is, in order to develop TELRIC compliant UNE rates, SBC must ensure that the work activities and personnel costs that are used to develop a rate accurately reflect the forward looking activities performed when SBC charges that rate to a requesting carrier. It is, therefore, rather obvious that in order to make sure that specific forward-looking work activities and personnel required to provision a rate element are correctly identified, the expert witness must understand the rate element and circumstances in which it will be applied -- otherwise she has no idea if the work supporting that rate element is, in fact, the forward-looking work in fact done where the rate element is assessed. Nevertheless, Ms. Gomez-McKeon, the SBC witness with primary responsibility in this proceeding for ensuring that specific forward-looking work activities and personnel required to provision the rate element are correctly identified, indicated during cross-examination that she has no knowledge of how SBC assesses its non-recurring rate elements. Tr. at 1448. Thus, SBC's non-recurring provisioning cost studies have not been reviewed and

modified to comply with TELRIC rules by SBC personnel qualified to perform that activity.

The manner in which SBC has implemented its nonrecurring provisioning cost study methodology in this proceeding is unquestionably deficient. Nevertheless, it is far from certain whether these failures relate to burden of proof, or whether these failures have resulted in significant departures from TELRIC rates. Staff is not in a position to design or propose process improvements or system enhancements that improve on SBC's existing processes or systems. Tr. at 1954. Nevertheless, Staff can, as it has done in this proceeding, call upon SBC to better explain those processes or systems that appear facially deficient, and to request explanation of processes or systems that SBC has failed to adequately identify and explain in testimony. In numerous instances, which are described in greater detail below, SBC has been unable or unwilling to provide such explanations and information.

Furthermore, the issues Staff has addressed in this proceeding relate to nonrecurring provisioning cost estimates where SBC's studies demonstrate facial deficiencies or internal inconsistencies. Again, Staff is simply not in a position to propose specific process improvements or system enhancements that improve on SBC's existing processes or systems. Tr. at 1954. This does not, however, indicate that other intervenors, those with actual experience in provisioning telecommunications services, cannot offer specific process improvements or system enhancements that would render SBC's existing processes or systems forward-looking. Since nonrecurring cost estimates are for the most part determined by work activities and associated activity time estimates provided by subject matter experts, the Commission is forced to

base its determinations regarding nonrecurring provisioning cost estimates upon the credibility of the subject matter experts providing the estimates.

The Staff does not question that SBC's subject matter experts and those SBC personnel they relied on ("In addition, these SMEs often drew upon the experience of other personnel with expertise in the subject matter[;]" SBC Ex. 6.0 at 6), whoever these people might happen to be, are well qualified to describe SBC's current processes and procedures, and are also well qualified to address potential technological and cost related adjustments to these processes and procedures. Therefore, under certain circumstances, the Commission should afford considerable weight to the inputs supplied by these subject matter experts. This proceeding, however, does not present such circumstances. It is clear that SBC did not give these subject matter experts a free hand in supplying inputs, but rather confined them to describing existing or anticipated SBC processes and technology. Furthermore, these subject matter experts were not presented as witnesses in this proceeding, and the record in this proceeding contains little information regarding the identities of these people, much less what they might say regarding the performance of the tasks they were assigned by SBC. These facts, in conjunction with the failures of the witnesses SBC did supply, necessarily mean that the Commission cannot be confident that the nonrecurring rates it adopts in this proceeding will be sufficiently supported as to constitute permanent rates.

While the information presented by SBC in this proceeding does not support the adoption of permanent nonrecurring provisioning costs and resulting rates, the Commission is certainly presented with much more extensive and complete information in this proceeding than it was presented with when determining many of its existing

nonrecurring rates, many of which are, in fact, the product of inter-party negotiations. *Order on Reopening* at 8, Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues, ICC Docket No. 98-0396 (April 30, 2002) (hereafter "TELRIC II Order on Reopening")

For this reason, Staff recommends the Commission adopt as interim rates subject to true up SBC's proposed rates with the adjustments proposed by Staff below and with any intervenor proposed adjustments the Commission finds appropriate.

The benefits of this approach are twofold. First, adopting interim rates will allow carriers to make informed business decisions based on what are most assuredly a more accurate set of rates going forward, but will not result in true-up of the numerous nonrecurring rates subject to true-up at this time. *See, e.g.*, ILL. C. C. No. 20, Part 19, Section 20. It will also afford parties the opportunity to remedy any deficiencies in these rates prior to instituting them as permanent and establishing final true-ups. Thus, the Commission will move to rates more likely to match permanent rates, yet permit any necessary corrections prior to permanency.

B. Service Order Nonrecurring Cost Studies

1. Identification of Tasks

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

2. Activity Times

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

3. Occurrence Probabilities

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

4. Service Order Computer Processing Costs

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

5. Fallout Rates

SBC's proposed NRCs for service ordering are inflated due to an overly pessimistic calculation of electronic flow through rate for service orders ("orders"). Staff Ex. 11.0 at 3. With the exception of NRCs for EEL ordering, the costs underlying ordering NRCs are based on historical, rather than forward-looking, levels of service order flow through. Id. at 3-4. This is contrary to TELRIC principles, and the Commission should therefore reject SBC's proposed service ordering NRCs. Id. at 4. Instead, the Commission should adopt the same flow through rates it found to be proper in its TELRIC *II Order*; there the Commission ordered a 98% flow through rate be used to determine non-recurring service order costs. Id.

If one is to properly analyze costs associated with service ordering NRCs, it is important to understand several terms of art. The term "flow through" refers to the

percentage of electronic orders that proceed through the ordering process without manual intervention. Staff Ex. 11.0 at 5. When an order requires for manual intervention, an SBC representative must actually look at the order, determine why the order did not proceed electronically, and then correct the order (or execute the next step in the process) to continue the order down the processing stream. Id.

"Fallout" is the converse of flow through, referring to the percentage of electronic orders that require manual intervention at some point in the ordering process. Staff Ex. 11.0 at 5. For example, if a flow through rate of 80% is achieved, there is a corresponding fallout rate of 20%. Id.

Orders that flow through electronically are far less expensive to process than are orders that fall out to manual intervention. Staff Ex. 11.0 at 5. Thus, the cost of processing service orders requiring a greater level of manual intervention is, as one might expect, higher than the cost to process service orders that require little or no manual intervention. Id. The type and complexity of the order, the maturity of the ordering systems, and the accuracy of information input to the service order are all factors that impact flow through rates. Id.

As ordering systems mature, problems are identified and corrected and system functionalities increase, thereby increasing flow through percentages. Staff Ex. 11.0 at 6. SBC asserts that it makes ongoing efforts to improve its ordering systems and resolve defects associated with them, stating as follows:

> SBC performs continuous defect analysis and reporting to correct failed flow through conditions for all products. Defects to address system error conditions affecting UNE Loop orders[33] were implemented during the

[33] SBC gave similar responses to Staff Data Requests seeking similar information regarding ordering for other loop types. Staff Ex. 11.0 at 6.

> noted timeframe. This increase in flow through occurred at the beginning of the measurement for UNE Loop flow through and has maintained this level with only small changes since January 2001.

Staff EX. 11.0 at 6, *citing* SBC Response to Staff Data Request SSM 3.04.

The nature of systems management is to catalogue existing system deficiencies, identify solutions for those deficiencies, and implement those identified solutions. Id. It is reasonable to assume that SBC performs continuous defect analysis and reporting to improve failed flow through conditions for all products. Id. SBC's OSS Plan of Record adopted as a result of the Commission's *Order*, Joint Application of SBC and Ameritech, ICC Docket No. 98-0555 (September 23, 1999) (hereafter "Merger Order") is a formal example of a systems management effort involving several parties. Id.

In its *TELRIC II Order*, the Commission established a forward-looking fallout rate of 2% (equivalent to a 98% flow through rate) for SBC[34]. TELRIC II Order at 41. In that proceeding, SBC did not base its non-recurring cost studies on forward-looking, least cost, most efficient network technologies, but instead upon on *existing* network architecture and processes, incorporating only those technologies and process improvements that the company *actually* planned to deploy in the next three years. Id. at 39-41. The Commission found this approach to be the antithesis of a forward-looking cost study. Id. In addition, the Commission found that SBC provided no support for its low flow through rates, and observed that the company's flow through rates were at odds with the high flow through rates Southwestern Bell Telephone Company ("SWBT") reports for its own system or affiliates. Id. Further, the Commission noted that the 2% fallout rate was consistent with the fallout rate adopted by the Michigan Public Service

[34] SBC was then known as Ameritech Illinois, but is referred to herein as "SBC" or "SBCI" to avoid confusion.

Commission. Id. The fallout / flow through rate adopted by the Commission in the *TELRIC II Order* remains in effect today.

In this proceeding, SBC proposes the following flow through rates for various types of service order:

Description of Service Order	Flow Through %
EDI POTS Existing UNE-P	86.96%[35]
New Combination UNE CPO (UNE-P)	86.96%[36]
Unbundled Loop	79.18%[37]
UNE – ULS Line Port and Trunk Port	86.96%[38]
Enhanced Extended Loop (EEL)	47.5%[39]

SBC calculated flow through rates -- other than for EELs – using data from July through September of 2002. Staff Ex 11.0 at 9. It stated that no EEL orders currently flow through. Id. at 9-10. Accordingly, the company's estimate of EEL flow through is based on subject matter expert (SME) estimates. Id. at 10.

SBC's flow through calculation in this proceeding is actually less forward looking than the one it submitted – and which the Commission rejected – in the *TELRIC II* proceeding. *See* TELRIC II Order at 39-41. In its flow through calculation in the *TELRIC II* proceeding, the company attempted to incorporate flow through process

35 SBC Ex. 5.0, Schedule KAC-2, Tab 6.12.

36 SBC Ex. 5.0, Schedule KAC-3, Tab 8.25.

37 SBC Ex. 5.0, Schedule KAC-5, Tab 8.18.

38 SBC Ex. 5.0, Schedule KAC-6, Tab 8.13.

39 SBC Ex. 5.0, Schedule KAC-7, Tab 8.19.

improvements that it planned to deploy in the next three years. TELRIC II Order at 39. In this proceeding, however, SBC makes no effort to incorporate any known process improvements that it plans to deploy in the next three years.[40] Instead, SBC relies entirely on the weighted average of its flow through experience from the months of July, August and September 2002.

Thus, no fewer than four of the five flow through rates offered by SBC suffer from the same deficiencies as – or, indeed, greater deficiencies than – the Commission identified in SBC's flow-through calculations in the *TELRIC II Order*. As SBC has stated, for EDI POTS Existing UNE-P, New Combination UNE-P, Unbundled Loops, and UNE – ULS Line Port and Trunk Port, SBC has simply proposed the weighted average of its past performance - July through September, 2002. Staff Ex. 11.0 at 9, *citing* SBC Response to Staff Data Request SSM 1.07. In other words, SBC has, in estimating its flow through rates for this proceeding, made no attempt to: (1) factor in flow through improvements made since September 2002; (2) factor in known flow through improvements; or (3) anticipate future flow through plans. Staff Ex. 11.0 at 10.

For EELs, SBC has proposed a low flow through rate (i.e., less than 50%) based on the estimate of a subject matter expert (SME). Staff Ex. 11.0 at 10. SBC, however, has failed to provide any of the assumptions used by its SME in the determination of a 47.5% flow through rate for EEL service orders. Id.

These, however, are not the only defects in SBC's flow through estimates. SBC has made numerous enhancements to its ordering processes certain to increase flow through after September 2002, and has identified future specific plans to continue to

[40] This is true with the exception of service ordering of EELs. As noted, the company projected a 47.5% flow through rate based on the expertise of its SME.

improve flow through performance. Staff Ex. 11.0 at 11-15, 21-22; Staff Ex. 30.0 at 13-14. The company has not, however, taken these enhancements into account in its flow through estimates. Id. It can scarcely be said that an estimate is forward-looking if it fails to take *planned* enhancements to existing practices into account.

SBC seeks to justify this obvious deficiency by claiming that it is unreasonable to base flow through rates for UNEs on analogous rates retail or resale services, because UNE orders are somehow more complex. SBC Ex. 5.0 at 25. SBC asserts that: "Instead of using a speculative figure for fallout rate, the Commission should primarily rely on actual UNE fallout rates to determine forward looking values[.]" Id. at 25-26. The company asserts that its fallout rates might actually be expected to *increase* over time. Staff Ex. 11.0, Schedule 11.01. In any case, SBC contends that recent experience provides no basis to expect flow through rates to be significantly different than those it submits in this proceeding. SBC Ex. 5.1 at 29.

SBC's position is unconvincing. It is clear that (1) flow through rates tend to improve over time;[41] (2) SBC Illinois has consistently made flow through improvements for the last eight quarters prior to the filing of Staff's Direct Testimony in this proceeding; and (3) SBC Illinois has plans for future enhancements. Staff Ex. 11.0 at 16. Further, use of historical flow through rates is, as noted above, contrary to FCC rules and to the Commission's TELRIC II Order, as is the company's failure to take planned enhancements into account. Try as it might, the company deserves to fail if it continues

[41] SBC's flow-through rates unquestionably *have* improved over the recent past, and have continued to trend upward during the 12-month period through December 2003. Staff Ex. 30.0 at 4-9, *also* n.12. This is, needless to say, also true of the long term. Id.

to advance the Orwellian contention that "forward-looking" really means backward looking.

Moreover, SBC's methodology is suspect even in deriving the unacceptable fallout percentages it submitted. For example, the company calculated its fallout percentage using OSS Performance Measure (PM) 13.1. Staff Ex. 11.0 at 18-19. However, PM 13.1 includes a large number of orders that are designed to, and the CLECs know will, fall out to manual intervention when they submit them. Id. at 19. Consequently, PM 13.1 skews performance data downward.

PM 13, on the other hand, includes only those orders that that are designed, or eligible, to flow through. Staff Ex. 11.0 at 13. When CLECs submits the service orders measured by PM 13, both the CLEC and SBC believe they will electronically flow through SBC Illinois' ordering systems without manual intervention.

The following table presents the Company's performance on PM 13, Order Process Percent Flow Through.

Service Order Type	Dec. '02	Jan. '03	Feb. '03
UNE Loops	93.3%	93.9%	98.3%
UNE-P	97.7%	93.4%	95.2%

Clearly, SBC's performance on this measure is markedly better. Equally clearly, PM 13, including as it does only those orders that can reasonably be expected to flow through, is a better measure of SBC's actual flow through performance than PM 13.1. Staff Ex. 11.0 at 19, 22.

Finally, SBC's flow through proposal for EELs must be rejected. In its TELRIC II Order, the Commission, in determining that SBC failed to adequately support its nonrecurring cost study, stated as follows:

> Also, readily apparent in the compliance filing and conceded by Mr. Florence, is the fact that **nowhere in the supporting documentation can we determine what, if any, assumptions the subject matter experts employed by Ameritech made in making these determinations**. One of the specific directives given Ameritech in the TELRIC Order was to **list the assumptions used in developing costs**.

TELRIC II Order at 40 (emphasis added).

SBC's proposed 47.5% flow through rate for EELs fails on this same count, as it entirely lacks supporting documentation. The information that SBC has seen fit to make available to the Commission is essentially (a) that SBC has achieved, historically, 0% flow through of EEL orders, SBC Ex. 5.0, Schedule KAC-7, Tab 8.19; and (b) it is putting processes in place that are intended to improve its performance. SBC Ex. 5.0 at 47-48. This, SBC claims, results, through some arcane process of reasoning it is not prepared to divulge, in a flow through rate of 47.5%. Id., Schedule KAC-7, Tab 6.9.

SBC's recommendation in this regarding is, in other words, completely unsupported. It must therefore be rejected.

Inasmuch as SBC has failed to give the Commission any reason to depart from the conclusions it reached in the TELRIC II Order, Staff recommends that the flow-through percentages the Commission adopted in that Order be retained. These are as follows:

Description of Service Order	Company Flow Through %	Staff Recommended Flow Through %
EDI POTS Existing UNE-P	86.96%	98%
New Combination UNE CPO (UNE-P)	86.96%	98%
Unbundled Loop	79.18%	98%
UNE – ULS Line Port and Trunk Port	86.96%	98%
Enhanced Extended Loop (EEL)	47.5%	98%

Staff Ex. 11.0 at 20-21.

6. Other Issues (Including Rate Design)

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

C. Provisioning (Loops and EELs) Nonrecurring Cost Studies

1. Identification of Tasks

SBC claims that the Special Services Center (SSC) / Local Operations Center (LOC) and Circuit Provisioning Center (CPC) / Hi-Cap Provisioning Center (HPC) conduct numerous and expensive testing activities when provisioning loops. See, generally, SBC Ex. 5.1 (Currie Rebuttal), Schedules KAC-R8 and KAC-R9. However, in the course of this proceeding, SBC has provided virtually no support, and certainly no credible support, for the charges associated with these activities. When Staff identified discrepancies in its studies, SBC not only failed to provide support for its initial

estimates, but also made changes to its studies and failed *again* to support these changes. It is certainly conceivable that some testing by SSS/LOC and CPC/HPC is consistent with TELRIC. However, SBC has utterly failed to prove this to be the case.

In fact, in the case of standalone loops, the witness sponsoring the provisioning costs studies, Chris Cass, indicated – before his departure from the proceeding – no such work need be done. SBC Ex. 6.0 at 12-13. SBC's addition of such work to its cost studies not only contradicts Mr. Cass' testimony, but is entirely unsupported by any credible evidence. In the absence of credible evidence to support the work performed by these groups in provisioning UNE loops, the Commission should not permit SBC to assess charges for either standalone loops or for EEL loops, which include costs related to the SSC/LOC and CPC/HPC groups.

SBC specifically contends that standalone and EEL loops differ, stating "[t]he only major difference is that POTs loops represented by the line connection charge are simpler to provision than the designed analog digital loops identified in the EEL cost study." SBC Ex. 6.0 at 26. The SBC witness who made this claim, Chris Cass, did so after working "closely with subject matter experts to properly identify the forward-looking tasks that are necessary to provision elements and services", conducting "several work-site field visits to observe provisioning tasks and service equipment", and conducting "in-depth interviews with work group representatives to verify that the time estimates and service designs given by subject matter experts are accurate." SBC Ex. 6.0 at 2.

SBC clearly views this difference as significant, but nonetheless failed to identify why the difference exists or is indeed significant. *See, generally* SBC Ex. 6.0. In light of this, Staff sought further information regarding why SBC listed testing conducted by the

Special Services Center (SSC) and Circuit Provisioning Center (CPC) for EEL loops, but not for seemingly similar standalone loops. Staff Ex. 7.0 (Zolnierek Direct) at 39-40.

Mr. Cass did not respond to this request for further information, bur rather departed this proceeding; SBC witness Dr. Kent Currie adopted his testimony. SBC Ex. 5.1 at 2-3. By Dr. Currie's own admission, he did not replicate the work done by Mr. Cass to prepare the studies that Mr. Cass sponsored. In fact, Dr. Currie appears to have no knowledge regarding what, if any, adjustments to subject matter expert input Mr. Cass made when developing the cost studies he sponsored. Tr. at 1139.

SBC ultimately addressed, in part, and unconvincingly, Staff's concerns regarding SBC UNE loop provisioning, and in particular, the CPC discrepancy. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 4. No SBC witness, however, addressed the SSC discrepancy identified by Staff.

With respect to the SSC discrepancy, SBC, without specifically addressing the discrepancy, altered its standalone UNE loop provisioning study so that its standalone loops require SSC testing work (which is done by the LOC group). SBC Ex. 5.1 (Currie Rebuttal), Schedule KAC-R8, Tab 6.3, at 35. A large discrepancy remains, however, between the work performed by the LOC group to provision standalone loops and the work performed by SSC to provision EELs. SBC Ex. 5.1 (Currie Rebuttal), Schedule KAC-R8, Tab 6.3, at 35; SBC Ex. 5.1 (Currie Rebuttal), Schedule KAC-R9, Tab 6.2, at 46.

With respect to the CPC discrepancy, SBC acknowledges that there are cost differences between the provisioning of EELs and the provisioning of standalone loops. SBC stated that these differences are proper because CPC[42] performs different activities in provisioning the two loops types. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 4. Inexplicably, however, SBC changed the estimates for the work performed by CPC in the standalone UNE loop provisioning study so that differences were eliminated. Staff Ex. 27.0 (Zolnierek Rebuttal) at 20-21. That is, SBC went to great length to support a difference that the company eliminated by increasing the testing activity it reports in support of its standalone line connection charge.

SBC attempted to clarify its position by asserting that "the rates should be the same for stand-alone and the EEL combinations, but should be based on the time estimates of the provisioning groups used in the EEL NRC." SBC Illinois Ex. 9.2 (Gomez-McKeon Surrebuttal) at 12. However, SBC further contends, when addressing Staff's concern regarding the SSC discrepancy for the first time, that the rates should not be the same because SBC uses the "SSC for the EEL order and LOC for the stand alone loop order." SBC Illinois Ex. 9.2 (Gomez-McKeon Surrebuttal) at 12. This does little to clarify SBC's proposal, and provides no explanation for why SBC uses the LOC group rather than the SSC group when provisioning EELs. Furthermore, SBC's LOC group spends much less time provisioning standalone loops than SSC spends provisioning EEL loops. SBC has offered no technological reason for this difference.

[42] As SBC states that this work is work performed by the Hi-Cap Provisioning Center (HPC) rather than the CPC -- as listed in SBC's cost studies -- Staff will refer to this work as performed by CPC/HPC.

Thus, SBC's only explanation for the differing cost estimates is the fact that different groups perform the provisioning activities. Id. All this demonstrates is that SBC's SSC group is inefficient relative to its LOC group when provisioning UNE loops. In other words, the SSC group cannot possibly be using forward-looking practices, and, at a minimum, the costs for this activity should be reduced to the level of the LOC's.

2. Activity Times

Standalone loops and EEL loops are treated differently in SBC's cost studies. SBC assumes that EEL loops are, on the central office side of the loop, cross connected to a DSX-1 while standalone loops are cross connected to a CLEC collocation. Staff Ex. 7.0 at 38. According to SBC costs studies, however, this difference does not, in the case of 2-wire analog, loops result in any difference in work activity times for the group responsible for performing the cross connects on the central office side of the loops --- the Field Operations Group (FOG). SBC Ex. 5.1, Schedule KAC-R8, Tab 6.3 at 37; Schedule KAC-R9, Tab 6.2 at 46. That is, while there is a slight difference in provisioning on the central office side of UNE loops between standalone loops and EEL loops, SBC reports the same cost of provisioning the cross connects on this portion of loops. Id. Conversely, the cross connect activities on the customers' side of loops do not differ. Id.

Unaccountably, according to SBC cost studies, the provisioning work times do differ for the case of 2-wire analog loops due to differences between work activity times for the groups responsible for provisioning cross connects on the customers' side of loops for standalone and EEL loops --- the Circuit Provisioning & Maintenance (CP&M)

Group and the Digital Operations Group (DOG), respectively. SBC Ex. 5.1, Schedule KAC-R8, Tab 6.3 at 34; Schedule KAC-R9, Tab 6.2 at 46. SBC has failed to adequately explain the differences in work activity times between these two studies that it estimates for the same basic work of cross connecting loops on the customers' side of loops.

The Staff first identified this discrepancy. Staff Ex. 7.0 (Zolnierek Direct) at 38-39. The Staff further identified two specific discrepancies: (1) DOG spends more time traveling to work locations than CP&M, and (2) DOG spends more time testing 2-wire analog loops than CP&M. Staff Ex. 7.0 (Zolnierek Direct) at 38-39. SBC undertook to address the travel discrepancy testimony, but did not address the testing discrepancy. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 21.

SBC attempted to explain the discrepancy in travel times by asserting that DOG spends more time traveling than CP&M because DOG is assigned a larger service area by SBC. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 21. However, this does nothing to explain why the assigned geographical areas of responsibility differ for these two groups, nor does it demonstrate that any differences are in any way related to efficient provisioning of UNE loops. Staff Ex. 27.0 (Zolnierek Rebuttal to SBC) at 17-18. SBC provided no further response or evidence in support of its position.

As matters stand, SBC has demonstrated that its CP&M group can provision cross connects on the customers' side of UNE loops in <u>less time</u> than DOG. SBC has offered no technological reason for the existence of this difference. Rather, it has argued that CP&M does the job more quickly due to the way CP&M is structured. Thus, based on its contentions, SBC has done nothing more than demonstrate that its DOG group is

inefficient when provisioning UNE loops. To remedy this problem, the Commission should, as recommended above, order SBC to replace the its EEL loop DOG provisioning estimates with the CP&M provisioning costs SBC estimates for stand alone loops.

Early on in the proceeding, Staff noted that the work performed by SBC's Hi-Cap Provisioning Center (HPC), the Field Operations Group (FOG), and the SSC (Special Services Center) were duplicated in its DS1 dedicated transport and Central Office Multiplexing cost estimates. Staff Ex. 7.0 (Zolnierek Direct) at 50. SBC attempted to explain this by stating that the manner in which CLECs request provisioning might in some cases affect the work these SBC groups must do in order to provision multiplexing. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 14. However, SBC failed to explain why it assumes that complete duplication of tasks is required when developing its multiplexing charge. Staff Ex. 27.0 (Zolnierek Rebuttal to SBC) at 28. SBC's sole response was that a CLEC might – in some cases – order multiplexing on two separate orders. SBC Ex. 9.2 (Gomez-McKeon Surrebuttal) at 14. This does not, however, explain why every task performed when multiplexing is established in conjunction with an order for dedicated transport needs to be performed *again* when a separate multiplexing order is placed; nonetheless, SBC assumes that *every* task *always* has to be performed twice, or at least *charged for* twice, even if, as appears likely, it is only done once. In particular, it does not explain whether requesting CLECs are charged for multiplexing twice because they are required by SBC's ordering systems to place two separate orders when initially establishing an EEL. Nor does it explain whether SBC

must repeat every task required to initially provision multiplexing when a CLEC requests a reconfiguration of the multiplexing arrangement in future periods.

In order to obtain further information on this point, Staff questioned SBC's expert witness on this issue, Vivian Gomez-McKeon, regarding her knowledge of how SBC assess its proposed NRC UNE rates. When asked if she knew how nonrecurring charges were going to be applied to EELs, Tr. at 1448. Ms. Gomez-McKeon responded: "No, I don't." Tr. at 1448. More specifically, Staff queried Ms. Gomez-McKeon on how SBC's proposed multiplexing charges would be applied. Tr. at 1450. Ms. Gomez-McKeon did not know the answer to this question either, and specifically stated that she could not match work activities to SBC proposed rates. Tr. at 1450-1451.

This is a significant evidentiary problem for SBC. Ms. Gomez-McKeon – by her own admission – cannot attest to the fact that the work listed by SBC in support of its multiplexing charge is in fact the work that SBC *actually* performs in circumstances when it assesses certain multiplexing charges. For example, if SBC assesses both a dedicated transport charge and a multiplexing charge when initially provisioning a 2-wire analog-to-DS1 EEL configuration, then SBC will be assessing charges that include double counted work activities. Notably, the witness sponsoring SBC's rate application schedules, Mr. Silver, clearly and repeatedly expressed a lack of knowledge regarding the activities and costs associated with SBC's proposed rates. *See, e.g.*, Tr. at 856-857, 861, 863, 869-870.

Assessing duplication becomes more complex when SBC is provisioning an EEL that includes DS3 dedicated transport. In this case, SBC includes the cost of DS1 to DS3 Central Office Multiplexing into its DS3 Interoffice Dedicated Transport cost computations. Staff Ex. 7.0 (Zolnierek Direct) at 49-50. However, in some circumstances (when CLECs request an EEL with voice grade loops and DS3 transport) SBC must also provision DS1 to Voice – Central Office Multiplexing when initially configuring the EEL. Id. If SBC assesses both a DS3 Interoffice Dedicated Transport charge and a DS1 to Voice – Central Office Multiplexing charge when initially configuring the EEL then SBC will be assessing charges that include double counted work activities. ***BEGIN CONF

. END CONF*** SBC Illinois Ex. 5.1 (Currie Rebuttal), Schedule KAC-R9, Tab 6.2, at 62; Schedule KAC-R9, Tab 6.2, at 53.

To ensure that SBC does not assess charges *twice* for work activities that it performs *once*, the Commission should order SBC to refrain from assessing multiplexing charges in combination with orders for dedicated transport. Instead, it should permit SBC to assess these charges if and only if CLECs request reconfiguration of existing multiplexing arrangements. SBC has failed to provide information that would ensure that this change alone would eliminate any chance of double counting for multiplexing work. For example, it is unclear whether every activity that SBC performs to initially configure multiplexing needs to be repeated when reconfiguring multiplexing.

This change, however, would certainly eliminate double counting of activities for initial installations.

3. Occurrence Probabilities

In developing its Standalone UNE POTS Loop Line Connection Cost estimates, SBC assumes that its Circuit Provisioning & Maintenance (CP&M) provisioning group will, with a work group occurrence factor (WGOF) equal to ***BEGIN CONF xxxxxx END CONF***, install cross connects and perform related activities on the customer side of the loop (i.e., at the Serving Area Interface (SAI), Remote Terminal (RT), Engineered Controlled Splice (ECS), and/or the Network Interface Device (NID)). SBC Ex. 5.1, Schedule KAC-R8, Tab 6.3, Page 34. SBC has not shown that this CP&M work group occurrence factor is accurate, or correctly applied with respect to development of the Standalone UNE POTS Loop Line Connection Cost estimates. In fact, the evidence presented in this proceeding suggests that SBC's CP&M work group occurrence factor is *inaccurate* and *incorrectly* applied in the development of Standalone UNE POTS Loop Line Connection Cost estimates.

In developing Line Connection Cost estimates for both Standalone UNE POTS and UNE-P POTS Loops, SBC estimates CP&M work group occurrence factors based on the Dedicated Outside Plant (DOP) percentage. SBC Ex. 6.0 at 17-18. SBC develops the DOP percentage by identifying, based on its existing inventory of loops, the percentage of its loops that are already connected through to the customer premises. Id. The DOP percentage is important to determining the work group occurrence factor for CP&M because CP&M will not perform line connection activities

when there is a fully established and available loop facility from the end-user premises to the central office. SBC Ex. 6.0 at 17.

The evidence that suggests that SBC's CP&M work group occurrence factor is inaccurate and/or incorrectly applied in the development of Standalone UNE POTS Loop Line Connection Cost estimates is based upon a comparison of the manner in which SBC estimates UNE-P POTS Loop Line Connection Cost estimates and the manner in which SBC estimates Standalone UNE POTS Loop Line Connection Cost estimates. When using the DOP to calculate Line Connection Cost estimates for UNE-P POTS Loops, SBC employs a two-step process. SBC Illinois Ex. 9.2 at 4. First SBC divides UNE-P POTS Loops into two categories when developing provisioning costs: New UNE-P POTS Loops and UNE-P POTS Loop Migrations. Id. SBC Illinois defines a migration as "moving an end-user's telephone service from one provider to another (SBC or another CLEC to a CLEC UNE loop service)." Id. Because a migration involves a loop that is a fully established and available from the end-user premises to the central office, SBC's cost estimates assume that the CP&M group does not perform line connection activities on the customer (rather than the central office) side of the loop when provisioning UNE-P POTS Loop Migrations. In fact, SBC does not submit a provisioning nonrecurring study for UNE-P migrations because such migrations require only service order related activities. For estimating costs of provisioning New UNE-P Loops, however, SBC assumes that the DOP rate reflects the percentage of loops that are already connected through to the customer premises and, therefore, assumes a CP&M work group occurrence factor equal to 100% minus the DOP percentage (or

100% minus ***BEGIN CONF xxxxx END CONF***) or ***BEGIN CONF xxxxxx END CONF***. SBC Ex. 5.1, Schedule KAC-R8, Tab 6.3, Page 34.

When calculating Line Connection Cost estimates for Standalone POTS loops, however, SBC dispenses with its two-step process. That is, SBC does not differentiate New Standalone UNE POTS Loops and Standalone UNE POTS Loop Migrations. Instead, SBC assumes all standalone UNE POTS Loops are New UNE POTS Loops, even those loops that are in fact *migrations* according to SBC's definition. SBC Ex. 9.2 at 4. SBC then assumes not only that the CP&M work group occurrence factor is equal to ***BEGIN CONF xxxxxx END CONF*** for Standalone UNE POTS Loops not resulting from migration, but also assumes that the CP&M work group occurrence factor is equal to ***BEGIN xxxxxx END CONF*** for Standalone UNE POTS Loops that are the product of a migration. Thus, even when there is a fully established and available loop facility from the end-user premises to the central office, SBC assumes that it must dispatch CP&M to perform line connection activities ***BEGIN CONF xxxxxx END CONF*** of the time.

Based on SBC's application of its DOP factor to UNE-P provisioning, it has misapplied its DOP factor to Standalone UNE POTS Loop provisioning, a fact that Staff Witness Zolnierek identified in his direct testimony. Staff Ex. 7.0 at 61.

SBC has, to date, failed to address this inconsistency. Instead, SBC provided additional evidence that, in its view, demonstrates that the CP&M work group occurrence factor it employs to estimate Standalone UNE POTS Loop Line Connection Costs is, while calculated inconsistently within its study, nonetheless "appropriately represented in SBC's study." SBC Ex. 9.1 at 23. SBC contends that the DOP rate for

UNE 2-wire analog loops for January 2003 through November 2003 was ***BEGIN CONF xxxxxx END CONF***. SBC Ex. 9.1 at 23. While it is not entirely clear, this presumably means that it is SBC's contention that, in nearly ***BEGIN CONF xxx END CONF*** of the cases a CLEC orders a stand-alone UNE POTS Loop (either a migration or non-migration), it must dispatch CP&M to connect the line on the customer side.

It is unclear whether SBC is applying the new DOP figure presented in Ms. Gomez-McKeon's rebuttal testimony accurately. Staff Ex. 27.0 (Zolnierek Rebuttal to SBC) at 33. Certainly, however, the new DOP figure is applied differently. As explained above, with respect to UNE-P, SBC applies the DOP rate to calculate work occurrence times only when the UNE-P is not created through migration. However, if one is to assume that the new DOP means that SBC must dispatch CP&M to connect the line on the customers side nearly ***BEGIN CONF xxx END CONF*** of the time when a CLEC orders a stand-alone UNE POTS Loop, one must also assume that this DOP rate applies both to UNEs created through migration and non-migrations. That is, if Ms. Gomez-McKeon is applying this new DOP correctly, then the DOP is not a DOP as SBC defined and applied it to UNE-P provisioning in its initial filing in this proceeding. SBC has offered no explanation for this change in methodology, if in fact, it has changed its methodology; it is quite impossible to tell from its evidentiary presentation.

Ms. McKeon contends that the new DOP SBC has presented should be applied differently than the DOP SBC is filing in its cost studies and that this alternative application proves the DOP SBC initially filed and continues to support is appropriate.

In essence, she asserts that, while SBC misapplied its original DOP, it subsequently discovered evidence that this misapplication, in conjunction with apparent error in its initial DOP submission, results in a correct outcome. In other words, SBC expects the Commission to believe that two significant errors have – utterly coincidentally – canceled one another out, yielding the correct outcome. This, needless to say, strains credulity.

This highly improbable coincidence remains unexplained, because during cross-examination SBC's attorney indicated that Ms. Gomez-McKeon was not qualified to offer the support that she has attempted to provide in her testimony, in the following exchange:

> Q. In addition to determining the DOP percentages for nonworking loops, you would need to determine the percentages of the loop order are for working loops and what percentages of the orders are for new loops?
>
> Mr. Sullivan [SBC counsel]: Ms. Gomez-McKeon is not the architect or sponsor of the cost study and does not testify about how costs would be allocated among different scenarios covered by the line connection cost.
>
> Tr. at 1488

Thus, it appears to be SBC's position that Ms. Gomez-McKeon is not equipped to determine whether the new DOP figure she provided in her rebuttal testimony should be applied to all standalone UNE provisioning or only to non-migration standalone UNE loops. Ms. Gomez-McKeon's lack of knowledge of how SBC's DOP rate is applied in its model was demonstrated in the following colloquy at hearing:

*** BEGIN CONF

Q.

A.

Q.

A.

END CONF *** See Tr. at 1443.

In fact, as explained above, SBC does not assume any CP&M activity in instances where CLECs migrate an existing customer to UNE-P.

Assuming for the sake of argument that SBC has calculated a new type of DOP and that Ms. Gomez-McKeon is applying it properly, the figure indicates an extremely large disparity between the work CP&M does to provision standalone UNE POTS loops and the work CP&M does to provision UNE-P POTS loops. The new DOP evidence presented by Ms. Gomez-McKeon indicates that, in recent periods when provision UNE-P POTS loops, CP&M performed line connection work less than ***BEGIN CONF xxxxx END CONF*** of the time when responding to ***BEGIN CONF xxxx END CONF*** requests for UNE-P POTS loops, and less than ***BEGIN END xxxxx END CONF*** of time when responding to requests for UNE-P POTS loops for all CLECs. Staff Ex. 27.0 at 33, n. 63. Thus, according to the new evidence presented by Ms. Gomez-McKeon, SBC needed to connect the customer end of a loop nearly ***BEGIN CONF xxx END CONF*** of the time when CLECs choose to serve customers with standalone POTS loops, but only about ***BEGIN CONF xxx END CONF*** when CLECs chooses to serve customers with UNE-P POTS loops. Staff Ex. 27.0 at 33, n.

63. SBC provided no evidence to support this large and inexplicable discrepancy created by its new evidence. This discrepancy is consistent, however, with the misapplication of its new DOP figure. That is, such a difference might have occurred if (a) the new DOP figure were applicable only to non-migration UNE loops, but (b) Ms. Gomez-McKeon inadvertently applied it to both UNE loop non-migrations and migrations. However, SBC has not provided sufficient evidence to confirm or refute this possibility.

For all of the above reasons, the Commission should reject the CP&M work group occurrence factor of ***BEGIN CONF xxxxxx END CONF*** presented by SBC. The Commission should, instead, require the company to assume a CP&M work group occurrence factor for standalone POTS UNE loops equal to ***BEGIN CONF xxxxx END CONF*** or, in the event a different DOP factor is adopted in this proceeding, ***BEGIN CONF xxxxx END CONF*** times (1 – the DOP factor adopted in this proceeding). This proposed rate corrects the inconsistency in SBC's cost studies by assuming that CP&M work group occurrence factor are the same for Standalone UNE POTS loops as they are for UNE-P POTS loops. See, generally, Staff Ex. 7.0 at 62 and 63.

In developing its UNE-P POTS Loop Line Connection Cost estimates, SBC assumes that its Field Operations Group (FOG) provisioning group will need to install cross connects and perform related activities in the central office ***BEGIN CONF xxxxxx END CONF*** of the time; the work group occurrence factor is equal to that figure. SBC Illinois Ex. 5.1, Schedule KAC-R8, Tab 6.3, Page 37. SBC assumes the

same FOG work group occurrence factors with respect to removal of cross connects and related activities in the central office. Id.

Staff has demonstrated that SBC had failed to account for instances where a customer served by a CLEC UNE-P migrates back to SBC retail service or to a CLEC providing service using an SBC loop and SBC switching. Staff Ex. 7.0 at 63-64. That is, SBC's study assumes that customers served via UNE-P never migrate to another provider (including SBC), which uses SBC facilities. SBC has, to date, failed to address this concern. *See* Staff Ex. 27.0 at 37. Therefore, the Commission should reject SBC's proposed FOG work group occurrence factors with respect to removal of cross connects and related activities in the central office.

Based on the fact that 91.4% of customers were provisioned over ILEC facilities at year end 2001, Staff recommended that the FOG work group occurrence factor for UNE-P POTS loop disconnect activities be set equal to ***BEGIN CONF xxxxx END CONF*** or, in the event the Commission adopts a Dedicated In-Plant (DIP) rate different from that proposed by SBC, a FOG work group occurrence factor equal to (1 – the DIP rate adopted in this proceeding) multiplied by a factor of 0.086%. Staff Ex. 7.0 at 65. Staff notes that more recent data suggests that, at year-end 2002, 90.9% of customers were provisioned over ILEC facilities. *See Illinois Commerce Commission*, Annual Report on Telecommunications Markets in Illinois at 15 (May 28, 2003). Therefore, the Commission should require SBC to use a FOG work group occurrence factor for UNE-P POTS loop disconnect activities equal to ***BEGIN CONF xxxxx END CONF*** or, in the event the Commission adopts a Dedicated In-Plant (DIP) rate

different from that proposed by SBC, a FOG work group occurrence factor equal to (1 – the DIP rate adopted in this proceeding) multiplied by a factor of 0.091%.

4. Fallout Rates

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

5. Disaggregation of Connect and Disconnect Charges

SBC proposes to include both installation and disconnection in the estimates of Loop Connection costs. Staff Ex. 7.0 at 40. Both activities are included within the single EEL Loop Connection rate, which the company assesses at the time the EEL loop is provisioned. Id. SBC proposes similar treatment of installation and disconnection with respect to EEL Dedicated Transport rates, standalone Line Connection rates, UNE-P Line Connection rates, and Port rates. Staff Ex. 7.0 at 46-47, 60, 63, and 67, respectively.

In calculating the disconnect portion of the Loop Connection cost, SBC assumes that the average location life of an EEL loop is 2 years. SBC Ex. 6.0, Schedule CFC-2, Tab 1. In order to adjust the Loop Connection cost estimate to account for the time between the assessment of Loop Connection rates and the time the projected disconnection occurs, the Company inflates the disconnect portion of the Loop Connection cost estimate to account for 2 years of labor rate inflation and then calculates the present value of projected disconnection costs assuming a cost of money equal to ***BEGIN CONF xxxxxx END CONF***. Id.

Michael Silver, the SBC witness that testifies to SBC's 2 year location life assumption, states that it was Mr. Cass that was responsible for explaining SBC's 2 year location life assumption in direct testimony. SBC Ex. 3.1 (Silver Rebuttal) at 2. However, although this assumption is incorporated into the studies supported by Mr. Cass, Mr. Cass makes no reference to this assumption in his direct testimony. Dr. Currie, the SBC witness that adopted Mr. Cass' testimony, likewise fails to explain the basis for SBC's location life assumptions in any of *his* testimony. In fact, when Staff issued data requests to SBC seeking information on the derivation of this 2 year location life assumption, Mr. Silver was listed as the responsible witness. Staff Ex. 7.0, Schedule 7.02. Therefore, while Mr. Silver has created some confusion as to which SBC witness is responsible for supporting the 2 year location lives included in SBC's NRC provisioning studies, Staff presumed that witness to be Mr. Silver, the only SBC witness that directly addressed this assumption in any testimony in this proceeding.

The assumption that Mr. Silver is the witness supporting 2 year location lives is important, because during cross-examination, SBC counsel represented that "Mr. Silver is not here testifying as a cost witness." Tr. at 863. Furthermore, Mr. Silver specifically and repeatedly indicated that he has no knowledge of the work activities supporting SBC's cost estimates. *See, e.g.,* Tr. at 856-857, 861, 869, 870, 871. Thus, the only SBC witness to directly address location lives in any testimony has no knowledge of SBC work activities, and therefore cannot verify that SBC does work activities associated with disconnection activities on average two years after it performs connection activities.

Furthermore, irrespective of which SBC witness was initially responsible for supporting the 2 year location life, SBC failed to support the 2 year average location life with its filing. In response to Staff's request to "[p]lease provide any or all information that the Company used to derive the location life of two years assumed in TAB 1 of Schedule CFC-2" SBC asserted that:

***BEGIN CONF

END CONF***

Staff Ex. 7.0, Schedule 7.02

Thus, it is SBC's view that ILEC contract term lengths are longer than the 2 year location life assumed for EELs. Staff EX. 7.0 at 41. SBC then speculates that CLECs may not tie their customers into contracts for term lengths as long as those typically used by ILECs. Id. Thus, based upon its view – which is, it scarcely need be added, rank speculation – that CLEC are for some reason inclined to enter into shorter—term contracts than ILECs, SBC makes what appears to be an arbitrary downward quantitative adjustment to location life based upon its unsupported qualitative speculation. Id. SBC's response to data requests, which presumably include any and all information upon which it relied to develop the two-year location life, fails to provide support for its assumed location life. Id.

The disconnect portion of the Loop Connection cost is a strictly decreasing function of assumed location life. Staff Ex. 7.0 at 41. Therefore, if SBC assumes a shorter location life than the average forward looking location life, SBC's Loop

Connection cost estimates will be overstated. Id. at 42. Accordingly, the unsupported assumption that term length for CLEC customers are shorter than the term lengths presumably experienced by SBC, yields an unsupported increase in the EEL Loop Connection cost estimate. Id.

SBC sought to rehabilitate its 2 year location life assumptions for EEL and other loops in rebuttal testimony to Staff and Intervenors. SBC attempted to provide additional evidence, presumably not used initially by SBC to develop its location life assumptions, in support of SBC's adjustment. See, generally, SBC Ex. 3.1. In particular, Mr. Silver provided a schedule labeled "Summary of Disconnected SBC Illinois UNE Loops." SBC Ex. 3.1 (Silver Rebuttal), Schedule MDS-R1. SBC (with SBC again identifying Mr. Silver again as the witness responsible for providing the response) stated, in response to Staff Data Request JZ 2.01, that this schedule does not reflect disconnects, but rather reflects "outward activity data", whatever that might be, from SBC Access Line reports. SBC Response to Staff Data Request JZ 2.01 D. Thereafter, SBC asserted – for the first time, and in surrebuttal testimony – that disconnections cover those cases where service is terminated and billing discontinued. SBC Ex. 3.2 (Silver Surrebuttal) at 2. However, as SBC's response to Staff Data Request JZ 2.01 makes clear, such outward activity does not necessarily result in SBC actually performing disconnection activities. SBC Response to Staff Data Request JZ 2.01 F.

The new information provided by SBC in rebuttal and surrebuttal testimony does not remotely prove that SBC was correct in assuming a 2 year location life for loops, transport, and ports. As an initial matter, it is unclear how well the information contained

in Schedule MDS-R1 tracks to the disconnection work actually performed by SBC. Because Mr. Silver professed ignorance of the actual physical provisioning activities underlying SBC's study during cross-examination, this information deficiency was not corrected during cross examination. Tr. at 863, 866, 869, 871. .

In addition to such potential problems, the information presented in MDS-R1 sheds no light whatsoever on location lives for transport portions of EELs. The location lives for these UNEs remain entirely unsupported. In fact, Mr. Silver frankly stated in his cross-examination testimony that SBC has no information that would enable it to determine a general location life for UNE transport. Tr. at 875-876. This is also consistent with the fact that SBC has presented no evidence at all to demonstrate that its location lives for UNE transport elements are accurate.

Mr. Silver was queried on UNE dedicated transport location lives during cross-examination and expressed his opinion that if UNE loop lives are on average two years, then UNE transport lives will be two years. Tr. at 876. However, this opinion is conceptually flawed because it fails to account for the fact that EEL loops may come and go while EEL transport remains in place. Tr. at 877. Because EEL transport can be used to support multiple EEL loops, the location life for EEL transport will on average be equal to and almost certainly greater than the location life for EEL loops --- a fact that Mr. Silver entirely overlooks.

The location life assumptions that SBC adopted in this proceeding were initially unsupported by either data or SBC witness testimony. SBC's attempts to provide new evidence that might show that its unsupported estimates are appropriate is too little and too late. SBC itself has indicated that it is feasible to remedy this problem through

disaggregation of connection and disconnection charges. However, as Mr. Silver testifies, SBC has made the determination that the present system of combining connect and disconnect charges into a single charge “has worked fine until know” and that “[t]here’s no reason to go through that trouble with everything else going on”. Tr. at 838. In other words, SBC is attempting to subordinate forward-looking principles to its own convenience.

Considerable uncertainty remains regarding the actual CLEC customer average location lives. SBC has not only failed to identify what location lives can be expected for UNE loops, transport, ports going forward, but has failed to clearly present the realized location lives for these UNEs in the past. SBC can correct this problem by assessing separate connection and disconnection charges and the Commission should require SBC to do so. SBC has provided no evidence that the costs of implementing this system are in any way comparable to the benefits that will accrue from more precisely aligning NRC charges with the work SBC actually performs. In fact, Mr. Silver indicated that many of the implementation problems that the Company cites that are related to separately billing connection and disconnection costs will be resolved by an order from the Commission which defines SBC’s new rate structure and then orders SBC to bill connection and disconnection separately. Tr. at 840.

As SBC has failed provide credible support for its 2 year location life assumption or provide a credibly supported revised location life estimate, the Commission should order SBC to calculate the location life for each loop type based upon the average location life of SBC’s comparable end-user offerings. Staff recommends, and the

Commission should adopt, a 4 year location life for the purpose of discount disconnection charges. Staff Ex. 6.0 at 32. Regardless of which location life the Commission directs SBC to adopt, it should nonetheless direct SBC to begin assessing separate connection and disconnection fees when its billing systems are able to do so in the first quarter of 2005. Staff Ex. 27.0 at 39, 42.

6. Other Issues (Including Rate Design)

D. Switch Port And Features Nonrecurring Cost Studies

1. Identification of Tasks

2. Activity Times

3. Occurrence Probabilities

4. Fallout Rates

5. Other (including rate design issues)

E. Miscellaneous

1. Special Access to UNE Conversion Nonrecurring Cost Study

Apart from service order related activities, SBC indicated in its initial filing that its physical provisioning groups performed activities to convert special access circuits to UNE combinations. SBC listed these activities in support of two charges for special access to UNE conversions: the Design & Coordination charge and the Demarcation Retag charge. SBC Ex. 6.0 (Cass Direct), Schedule CFC-3, Tab 3.

Staff identified a number of defects in both the Design & Coordination and Demarcation Retag charge. With respect to the Design & Coordination charge Staff found that the so-called Design & Coordination related activities were activities performed by the physical provisioning group to ensure that these groups do not, in fact, do any work. Staff Ex. 7.0 (Zolnierek Direct) at 27. Based on the evidence presented by SBC, "it appears that these tasks are designed to overcome an inefficient provisioning system rather than to work in conjunction with the most efficient technology currently available, and that they would not be required absent an inefficient provisioning system." Staff Ex. 7.0 (Zolnierek Direct) at 27. With respect to the Demarcation Retag charge, Staff noted, while SBC computed costs for these activities as though they are done in every case at initial installation, that the evidence filed by SBC suggested these tasks are not done by the company at installation, and indeed may never be done. Staff Ex. 7.0 (Zolnierek Direct) at 30-31.

As noted above, Mr. Cass departed this proceeding and therefore did not respond to Staff, and Dr. Currie does not know what adjustments Mr. Cass made to the studies sponsored by Mr. Cass. Thus, SBC original submission is unsupported. Ms.

Gomez-McKeon, however, addressed the special access to UNE conversion issue in her rebuttal testimony. See SBC Ex. 9.1. She indicated, with respect to the Design & Coordination charge, that SBC's provisioning groups must perform these activities in order to effect billing changes; that she knows of no system that could more cost effectively handle this function; and that SBC processes few of these orders, so that it would not be economical for SBC to move to an electronic processing system. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 36. With respect to the Demarcation Retag charge, Ms. Gomez-McKeon noted that SBC determined on a 13-state basis that it will not tag a conversion when there is no change to an existing loop. SBC Ex. 9.1 (Gomez-McKeon Rebuttal) at 35. Consistent with her testimony, SBC reset the Demarcation Retag charge to zero. SBC Illinois Ex. 5.1 (Currie Rebuttal), Schedule KAC-R10, Tab 3.

In response to this, Staff observed that the evidence provided by SBC still failed to explain why SBC provisioning groups were involved in effectuating billing changes to the extent reported by SBC, and also failed to explain what portion of the activities performed by these groups was simply undertaken to make certain that SBC technicians could refrain from actually doing any work. ICC Ex. 27.0 (Zolnierek Rebuttal to SBC) at 7. Staff pointed out that SBC estimates a cost that in some instances equals***BEGIN CONF xxxxxxx END CONF***, not considering service order related charges, simply to effectuate a billing change for a circuit that is already provisioned. Staff Ex. 27.0 (Zolnierek Rebuttal to SBC) at 7. This is quite clearly excessive.

In her surrebuttal testimony SBC offered the following additional support to explain SBC's Design & Coordination charge. First, it contended that it involves its provisioning groups to ensure orders for disconnection of special access circuits and

orders for connection of UNE combinations are identical "allowing for error free completion." SBC Ex. 9.2 (Gomez-McKeon Surrebuttal) at 2. SBC also indicated that the SBC 13 state staff General Manager had verified that there were no labor saving steps available that would reduce SBC's processing time. SBC Ex. 9.2 (Gomez-McKeon Surrebuttal) at 2.

SBC's support is deficient. First, SBC has not specified what its provisioning groups are attempting to do that incurs these costs. Seemingly, the provisioning groups examine orders, in part, to ensure that they do not actually do anything. That is, it appears that error free completion means that SBC's provisioning group does no work apart from comparing orders (perversely, orders generated to ensure no work is performed). This is not, however, entirely clear. In cross-examination, Staff attempted to elicit what, if any, work SBC's provisioning groups do besides simply comparing two orders for work and ensuring that these work orders are not actually worked. Ms. Gomez-McKeon indicated that SBC's provisioning groups need do no work provided the work orders (which are not to be worked) contain accurate information. The colloquy in question is as follows:

> Q. … Do the provisioning groups do more than verify that the information within the system is adequate --- or accurate?
>
> A. They would verify that the information is correct. They would enter and correct any necessary information in establishing the removal of the special access circuit and then modify it to an unbundled circuit.
>
> Q. And that would assume that there was some incorrect information?

A. That is correct.

Q. And if there wasn't, they wouldn't have to do anything other than verifying the accuracy of the information?

A. Correct.

Tr. at 1453.

In other words, if information is accurately entered into SBC's system, SBC assesses a charge that equals in some instances ***BEGIN CONF xxxxxxx END CONF*** for its provisioning groups to simply compare two orders and nothing else. This is clearly excessive.

While Ms. Gomez-McKeon's testimony provided strong evidence that SBC's Design & Coordination charge is at best grossly inflated and perhaps entirely inappropriate, Staff nonetheless attempted to further identify what activities SBC would need to take to actually move its customer information from one billing database to another. Unaccountably, Ms. Gomez-McKeon could not identify the databases containing SBC EEL, special access, or private line billing information. Tr. at 1453. Thus, Ms. Gomez-McKeon's lack of knowledge of SBC's systems and processes absolutely prevented Staff from determining whether SBC's provisioning groups perform any necessary functions at all when provisioning (or more appropriately not provisioning) special access to UNE conversions.

Perhaps these deficiencies are best illustrated by SBC's redirect examination of Ms. Gomez-McKeon, which included the following colloquy:

Q. You were also asked – in connection with SA2 UNE conversion you were asked whether SBC actually disconnects --- actually will disconnect the existing special access circuit ID. Do you recall that?

A. Yes, I do.

Q. And you recall indicating that SBC does not actually perform any actual disconnection?

A. That's correct.

Q. Do you know if SBC is proposing to charge the CLEC for disconnecting the circuit ID?

A. There is no charge.

Q. And similarly you were asked about whether SBC actually provisions the new circuit as part of an SA2 UNE conversion; do you recall that?

A. Yes.

Q. And does SBC actually provision a new circuit?

A. No physical provision.

Q. And is SBC proposing to charge for provisioning a new circuit?

A. No. There's no charge.

Tr. at 1503-04

Thus, Ms. Gomez-McKeon unequivocally states that SBC does no work whatever to provision these circuits. She also indicates that there is no charge for provision circuits

because no provisioning is done. SBC, however, does propose to assess a Design & Coordination charge for special access to UNE conversions that are supported by activities performed by its physical provisioning units. Thus, Ms. Gomez-McKeon's testimony confirms that SBC is assessing charges for not doing work. Staff recommends, based on the complete absence of any justifiable cost estimates, that the Commission reject SBC's proposed Design & Coordination charge.

2. ULS Billing Establishment

F. Labor Rates

1. Support Asset Costs

As noted above, SBC did not develop the NRCs it proposes in this proceeding in a manner consistent with TELRIC ratemaking principles. SBC's use of the so-called "support asset factor" (hereafter "SAF"), as an adder to wage rates is directly contrary to TELRIC principles, and to prior Commission orders. The SAF assigns costs of certain physical assets directly to the labor rates of employees who use those assets. Staff Ex. 6.0 at 11. The use of the SAF adds significantly to the labor rate of certain classes of employees. Id. In short, the addition of the SAF increases level of labor rates. Id. Since labor costs are a major component – perhaps, the major component -- of total costs in the determination of non-recurring network element costs, this change in method significantly increases NRCs. Id.

SBC does not contend that the company previously overlooked or was otherwise unable to capture these costs. Staff Ex. 6.0 at 11. Indeed, it forthrightly states that those costs were previously a component of the shared and common markup. Id. However, SBC contends that its SAF methodology more appropriately follows the principles of

cost causation established in the *First Report and Order*, and indeed is the best and most proper way to recover these costs. Id.

SBC is simply incorrect in this assertion. The SAF violates the cost causation rules and principles established in the *First Report and Order*. Therefore, use of the SAF does not comply with TELRIC ratemaking principles. Moreover, use of the SAF is a departure from methods that SBC has previously used in the development of labor rates as a input into NRCs. Staff Ex. 6.0 at 16. Previously approved commission rates using labor rates as an input into the cost study have not included these costs. Id.

The SAF is intended to attribute the costs of physical assets to the wage rate of employees. Staff Ex. 6.0 at 12. First, SBC identifies categories of costs associated with physical assets. Id. Toward this end, SCBI identifies two broad categories of costs. Id.

The first category is operating expenses. Staff Ex. 6.0 at 12. Included in operating expenses are motor vehicles, garage work equipment, other work equipment, land & building house service, furniture, office equipment, general-purpose computers, and amortization expense. Id. at 13. Of these expenses, general-purpose computer cost is the most significant, accounting for slightly more than three-fifths of the total. Id.

The other broad category of costs is capital costs. Staff Ex. 6.0 at 13. Capital costs recover depreciation, return and income tax expenses associated with capital assets. Id. SBC Illinois identifies a sum exceeding eight figures in capital expenses associated with land, motor vehicles, garage work equipment, other work equipment, buildings, furniture, office equipment, and general purpose computers, the most

significant element of this cost is buildings. Id. Building costs amount to approximately one-half of the total. Id.

To allocate these costs to wages on an hourly basis, SBC determines the investment in the longer-lived assets. SBC Ex. 6.0 at 13. It then applies a factor known as an annual cost factor ("ACF") to that investment in order to develop an annual cost of providing the capital asset. Id. An ACF is a number between 0 and 1. To explain through an example, assume an asset where the ACF is point two (.2). Id. Also assume that the investment in this asset is $1,000,000. Id. The annual capital cost of providing this asset would be $200,000 ($1,000,000 x .2). Id.

Contrary to SBC's assertions, this change in the company's method of recovering these costs does not constitute an improvement. Id. Nor can it be fairly said that the SAF more directly attributes costs to the activities that cause costs. Id. More fundamentally, however, use of the SAF is contrary to TELRIC pricing principles. Id.

There are obvious reasons for this. Items such as buildings, land, and computers are not consumed on a one-time basis. Staff Ex. 6.0 at 17. They are in place – and in use – for years. Id. For example, a building is not in any way "consumed" by a technician who performs an activity in that building associated with provisioning a service for a CLEC customer, such as doing a cross-connection. Id. It only takes a few minutes for a technician to perform that activity. Id. The action of performing a cross-connection does not in any way cause the building in which the technician is working to be "consumed". Id. While there must be a building in place so that the company can shelter its and its CLEC customers' equipment from the elements, it is simply implausible to state that the costs of that building are somehow directly attributable cost

to an activity. Id. at 18. Consequently, cost-causation principles – the concept that costs should be allocated as closely as is possible to the manner in which they are incurred, *see, e.g.*, 47 C.F.R. §51.5.7(a) – prohibit the use of the SAF, since the SAF effectively causes cost causation to *diverge* from cost recovery.

The FCC recognized this in the *First Report and Order*. It specifically defined a recurring cost as "one incurred periodically over time", First Report and Order, ¶745, and likewise specifically prohibited ILECs from recovering such costs through NRCs. Id.; *see also* 47 C.F.R. §51.507(d) ("Recurring costs shall be recovered through recurring charges, unless an incumbent LEC proves to a state commission that such recurring costs are *de minimis*"). The FCC took the trouble to provide examples of the types of costs not properly recoverable through NRCs. First Report and Order, ¶745. Such costs include, but are not necessarily limited to, income taxes, maintenance expenses, and administrative expenses; these are costs that are incurred in connection with the asset over time. Id. The costs that SBC seeks to recover through the SAF are anything but *de minimis*, and are recurring. Use of the SAF therefore violates Rule 51.507.

As noted above, a significant element of the support asset factor is capital costs. Staff Ex. 6.0 at 19. SBC develops those costs by determining a forward-looking investment amount and applying the annual cost factor to that amount. Id. For purposes of examining NRCs, the key issue is that the main components in the development of the ACF are return, depreciation, and income taxes. Id. All of these costs are recurring in nature, and the recovery of income taxes through NRCs is specifically prohibited. Id.;

First Report and Order, ¶745. For this reason alone, the SAF is improper and the Commission should reject its use.

V. Shared And Common Factors

SBC witness, Mr. Barch, claims that SBCI's Shared and Common ("S&C") "factor is the most accurate representation of its shared and common costs." SBC Ill. Ex. 7.0 (Barch), p. 5. SBCI contends that its S&C factor "measure[s] the relationship between shared and common costs to direct costs." *Id*., p. 6. Mr. Barch explained that SBCI's "wholesale S&C factor is the ratio of SBC Illinois' shared and Common costs to direct incremental costs." *Id*., at 8. The formula for SBCI's proposed wholesale S&C cost factor is:

(TOTAL COMMON COST / TOTAL DIRECT COSTS)
+
(WHOLESALE SHARED COSTS / WHOLESALE DIRECT COSTS)

Staff, however, disagrees with SBCI's methodology for recovering shared and common costs. Staff identified several fundamental flaws in SBCI's proposal for shared and common cost recovery. Staff Ex. 8.0 (Chang adopting Patrick), p. 18. The fundamental flaws in SBCI's proposed shared and common cost methodology include: (1) both the numerator and denominator of the Shared Cost allocation factor are wrong; (2) regarding the numerator of the Shared Cost factor, SBCI has failed to provide any evidence that its identified Marketing cost is either a UNE shared costs or a wholesale shared costs, SBCI also incorrectly included the uncollectibles as an expense related to shared costs; (3) regarding the shared cost denominator, the wholesale direct costs amount is inappropriately calculated and is dramatically understated because SBCI

multiplied the common costs denominator (the total direct costs) by an understated wholesale direct cost percentage to arrive at an understated denominator (the wholesale direct costs); (4) the wholesale direct cost percentage factor numerator and denominator do not match as the numerator is an estimate of forward looking wholesale costs and the denominator is an actual amount of historical costs from ARMIS; and (5) if SBCI had provided any evidence supporting its contention that there actually are any UNE or other wholesale shared costs, then it must develop a denominator that includes all UNE direct costs plus all other wholesale direct costs. Before addressing these specific flaws Staff has identified in SBCI's shared and common cost recovery proposal, a brief look at the legal landscape on shared and common costs may be instructive.

The Legal Landscape – at the Federal Level

The FCC addressed Shared and Common Costs in its *First Report and Order*.[43] In the *First Report and Order*, joint, or shared, and common costs are addressed under the section on "Pricing Methodologies." The FCC determined that new entrants should be charged prices for interconnection and unbundled elements that are based on Total Element Long Run Incremental Cost ("TELRIC"), calculated for the local Regional Bell Operating Company ("RBOC"), "plus a reasonable share of forward-looking joint and common costs."[44] In other words, the FCC recommends that UNE prices be comprised of (1) TELRIC estimates of forward-looking economic costs of providing an element, plus (2) a share of forward-looking shared and common costs. In its simplest terms,

[43] *First Report and Order,* In the Matter of implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers, CC Docket Nos. 96-98 and 95-185. FCC 96-325, 11 FCC Rcd 15499(released August 8, 1996)("*First Report and Order*").

[44] *First Report and Order*, ¶29.

TELRIC outputs added to the appropriate allocation of shared and common costs equals UNE rates. Staff Ex. 8.0 (Chang adopting Patrick), pp. 8-9.

The FCC does not require that any particular methodology to be used to determine a "reasonable share" of forward-looking shared and common costs. Staff Ex. 8.0 (Chang adopting Patrick), p. 9. Beyond this emphasis on "reasonableness," the FCC provides little guidance regarding the review and development of shared & common costs. *Id*. That is, except for Ramsey pricing, which is expressly prohibited in the FCC order,[45] the FCC recommends any "reasonable" methodology for calculating shared and common costs for setting UNE prices. *Id*.

Shared Costs

The FCC's First Report and Order provides the following definition of "joint," or shared costs:

> Certain types of costs arise from the production of multiple products or services. We use the term 'joint costs' to refer to costs incurred when two or more outputs are produced in fixed proportion by the same production process (*i.e.*, when one product is produced, a second product is generated by the same production process at no additional cost).[46]

Shared costs, then, are costs attributable to two or more network elements that cannot be attributable directly to a single network element. Staff Ex. 8.0 (Chang adopting Patrick), p. 10. Likewise, shared UNE costs would disappear if SBCI were to discontinue providing unbundled network elements. *Id*. For the purposes of this docket,

[45] *First Report and Order*, ¶696 ("[W]e conclude that an allocation methodology that relies exclusively on allocating common costs in inverse proportion to the sensitivity of demand for various network elements and services may not be used.").

[46] *First Report and Order*, ¶ 676.

it is safe to conclude that shared costs applicable to UNEs arise from the production of groups of unbundled network elements (UNEs). *Id*.

Common Costs

The FCC's TELRIC order provides the following definition of common costs:

> The term 'common costs' refers to costs that are incurred in connection with the production of multiple products or services, and remains unchanged as the relative proportion of those products or services varies (*e.g.*, the salaries of corporate managers). Such costs may be common to all services provided by the firm or common to only a subset of those services or elements. If a cost is common with respect to a subset of services or elements, for example, a firm avoids that cost only by not providing each and every service or element in the subset. [47]

Common costs are typically "fixed" costs for the firm, in that they do not vary in relation to the amount of products generated throughout the company. Staff Ex. 8.0 (Chang adopting Patrick), p. 11. In normal commerce, such fixed costs are often classified as overhead costs. *Id*.

The FCC's *First Report and Order* limits the recovery of shared and common costs to only forward-looking economic costs for the calculation of Section 251(c)(2) and (c)(3) prices. Staff Ex. 8.0 (Chang adopting Patrick), p. 11, *citing* 47 U.S.C. §251(c)(2), (3). FCC regulations explicitly prohibit the following items from recovery through a shared and common cost markup: embedded or accounting costs in excess of economic costs, incumbent local exchange carrier's (LEC) opportunity costs, universal service subsidies, and access charges. *Id*., *citing* 47 CFR 51.504(d)(1)-(4).

The Legal Landscape – at the State Level

[47] *First Report and Order*, ¶ 676.

This Commission has addressed shared and common cost recovery through UNE pricing in the following orders: (1) ICC Docket No. 96-0486 (TELRIC proceeding – First Interim Order); ICC Docket No. 96-0486 (TELRIC proceeding – Second Interim Order); ICC Docket No. 98-0396 (TELRIC II proceeding); and ICC Docket No. 00-0700 (TELRIC 2000 proceeding). Staff Ex. 8.0 (Chang adopting Patrick), pp. 11-12.

In short, in its *Second Interim Order* in Docket No. 96-0486, the Commission established the shared and common markup for Ameritech Illinois for UNE rates. Staff Ex. 8.0 (Chang adopting Patrick), p. 11. In considering the arguments of the various parties, the Commission ruled, in relevant part, that:

1. because Ameritech Illinois is a company under an alternative form of regulation, it would be "inappropriate policy" to load discretionary costs, such as charitable contributions and promotional expenditures, on to rates paid by new entrants;[48]

2. any retail-related expenses identified by intervenors were removed from common costs;[49]

3. shared costs were reduced in response to intervenor proposals;[50] and

4. Ameritech's proposed allocation methodology (flat-amount allocation, based on extended TELRIC, or forward-looking estimates of demand for UNE elements) was rejected in favor of a percentage allocator (markup).[51]

While the Commission ordered SBCI (Ameritech Illinois) to employ a percentage markup to recover shared and common costs in the *Second Interim Order*, the order did not specify what that percentage markup should be. Staff Ex. 8.0 (Chang adopting Patrick), pp. 12-13. The order did, however, set the appropriate amount of shared and

[48] *Second Interim Order* at 133, Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic, Docket No. 96-0486/0569 (February 17, 1998)(hereafter "Second Interim Order")(Lexis pagination).

[49] *Second Interim Order* at 133-34.

[50] *Id*. at 127-32.

[51] *Id*. at 138-40.

common costs Ameritech Illinois should recover through its percentage allocator. *Id*., p. 13.

Currently, SBCI uses ***BEGIN CONF xxxxxx END CONF*** as its combined shared and common cost factor. Staff Ex. 8.0 (Chang adopting Patrick), p. 13, *citing* SBC Illinois Ex. 7.0 p. 28. SBCI, however, mistakenly attributes this factor as an "ordered" factor. As noted above, the Commission's orders in this matter did not order a specific percentage. *Id*.

The Commission's orders regarding UNE rates for SBCI determined a final amount to be recovered, and ordered the company to use a particular methodology. Staff Ex. 8.0 (Chang adopting Patrick), p. 13. The Commission's *Second Interim Order* did not order a specific percentage markup to use, but instead only stated that the Company had to develop a percentage markup to use to recover shared and common costs through UNE rates. *Id*. Likewise, the subsequent dockets that have reviewed the recovery of shared and common costs through UNE rates for SBC Illinois[52] have not ordered a specific percentage markup to apply to recover shared and common costs through UNE rates. *Id*.

[52] *See Order*, Illinois Commerce Commission On Its Own Motion: Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues, ICC Docket No. 98-0396 (October 16, 2001) ("TELRIC II Order"); *Order on Reopening*, Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues, ICC Docket No. 98-0396 (April 30, 2002) ("TELRIC II Order on Reopening"); *Order,* Illinois Commerce Commission On Its Own Motion v. Illinois Bell Telephone Company: investigation into Tariff Proceeding Providing unbundled Local Switching with Shared Transport, ICC Docket No. 00-0700 (July 12, 2002) ("TELRIC 2000 Order")

A. Issues Common To Shared And Common Factors Development

1. Use of New Methodology Generally

As noted above, Staff found some fundamental flaws inherent in the SBCI proposal regarding the recovery of shared and common costs. Staff Ex. 8.0 (Chang adopting Patrick), p. 18. First, the Shared and Common Factor proposed by SBCI will significantly over-recover shared and common costs from unbundled network elements. *Id*. More generally, the Shared and Common Cost models provided by SBCI reflect multiple flaws in identifying specific costs attributable to direct, shared, and common sources. *Id*.

Over-Recovery of Shared and Common Costs Through SBCI-Proposed UNE Rates

Using the "Update of Prices for Certain Unbundled Network Elements" included in the Company's tariff filing, Staff was able to estimate the amount of shared and common costs recovered through SBCI's Shared and Common Cost factor. Staff Ex. 8.0 (Chang adopting Patrick), p. 19. The "Update of Prices for Certain Unbundled Network Elements" sets forth annual quantities, old and new rates, and total annual revenues for a set of recurring and non-recurring UNEs. *Id*., Sched. 8.02. This set of elements represents only a subset of the total number of rate elements submitted for review by SBCI in this tariff filing. *Id*.

The amount of shared and common costs recovered through the S&C factor, based on 2001 volumes, is ***BEGIN CONF xxxxxxxxxx END CONF***. Staff Ex. 8.0 (Chang adopting Patrick), p. 20, Sched. 8.03 (sum of Column (4)).[53] Using 2002

[53] The numbers contained in this Initial Brief were updated based upon the data provided in SBCI witness Mr. Barch's "Recalculated SBC Illinois Shared & Common Cost Study," Sched. DJB-R12, attached to (continued…)

volumes, the amount of shared and common costs recovered in this manner rises to ***BEGIN CONF xxxxxxxxxxx END CONF***. Staff Ex. 8.0 (Chang adopting Patrick), p. 20, Sched. 8.03 (sum of Column (6)), as updated by SBCI Sched. DJB-R12.

From the shared and common cost studies submitted by SBCI, as summarized in Schedule DJB-R12, SBCI has identified a total of ***BEGIN CONF xxxxxxxxxxxx END CONF*** in shared and common costs that it needs to recover. *Id*. From its calculations, SBCI estimates its forward-looking shared costs to be ***BEGIN CONF xxxxxxxxx END CONF***, and its common costs to be ***BEGIN CONF xxxxxxxxxxxx END CONF***. *Id*.

Using 2001 volumes, the SBCI-proposed S&C factor would recover ***BEGIN CONF xxxxxx END CONF*** of SBCI's shared and common costs, as identified in its wholesale S&C Cost Study, through UNE prices for this subset of elements. Staff Ex. 8.0 (Chang adopting Patrick), p. 20. Using 2002 volumes, the SBCI-proposed S&C factor would recover ***BEGIN CONF xxxxxx END CONF*** of the Company's total common and wholesale shared costs, as identified by the Company, through UNE prices, again examining only this subset of elements. While these estimates rely on historical sales volume data provided by the Company, it is still reasonable to make

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(continued from previous page)
SBC Ill. Ex. 7.1 (Barch). Thus, although the specific numbers were updated, the analysis remains the same as found in Sched. 8.03, attached to Staff Ex. 8.0 (Chang adopting Patrick). Schedule 8.03 (proprietary) sets out the proposed rates (Column (1)) for a set of UNEs, based on Schedule 8.02. Staff Ex. 8.0 (Chang adopting Patrick), p. 19. Using volume data provided by the company for 2001 (Column (2)), 2001 Revenue is estimated (Column (3)) using the standard relationship between price, quantity, and revenue. (See Part 1 of attached technical appendix, Schedule 8.01.) Using the final equation (Eq. 8) derived in the technical appendix (*See* Schedule 8.01), the portion of UNE prices attributable to the SBCI Shared and Common factor is estimated, and multiplied by 2001 quantity. The relevant shared and common factor used is ***BEGIN CONF xxxxxx END CONF***, as proposed by Mr. Barch. SBCI Ex. 7.0 (Barch), Schedule DJB-1. This result is shown in Column (4). Similarly, Columns (5) and (6) present 2002 volumes and 2002 amounts recovered through the S&C factor.

these comparisons. *Id*., p. 20-21. Annual sales volume information can provide a reasonable proxy for expected sales volume in upcoming years, in the absence of any other information from the Company. *Id*., p. 21.

Using 2002 information, from a historical perspective, SBCI's wholesale UNE business accounts for ***BEGIN CONF xx END CONF*** of the overall Company's expenses, and roughly ***BEGIN CONF xx END CONF*** of the Company's revenues.[54] Staff Ex. 8.0 (Chang adopting Patrick), p. 21. By this filing, the Company proposes to increase UNE loop rates only. *Id*. Using the Company's own information, it is apparent that it is attempting to recover an unreasonable portion of their shared and common costs from UNE rates. *Id*. The analysis shown in Schedule 8.03 as updated is only for a portion of the rates submitted with this filing. Given the large number of rate elements submitted for review in this tariff filing, we can expect that the Company will recover even more from its application of its proposed S&C factor to the elements that are not displayed in Schedule 8.02 than the totals displayed in Schedule 8.03.

A more reasonable expectation would be that any subset of UNE rates should recover less than ***BEGIN CONF xxxx END CONF*** of shared and common costs, if we believe that measures of wholesale expenses or wholesale revenues represents the wholesale portion of the Company's total business. Staff Ex. 8.0 (Chang adopting Patrick), p. 21-22. Since UNE rates are based on TELRIC plus a shared and common allocator, if the Company's cost information is correct, it appears that the Company is over-allocating its recovery of shared and common costs through their shared and common markup on UNE rates. *Id*., p. 22.

[54] 2002 Aggregate Revenue Test filing, ICC Docket No. 02-0240.

Inappropriate identification of shared and common costs

The Company has identified only two categories of shared costs: wholesale marketing costs and wholesale uncollectible costs. SBC Ill. Ex. 7.0 (Barch), pp. 18-19. Staff disagrees with SBCI's treatment of both wholesale marketing costs and wholesale uncollectible costs as shared costs. Staff Ex. 8.0 (Chang adopting Patrick), p. 25. See § V.C.3 below for a detailed discussion of wholesale marketing costs and § V.C.2 for wholesale uncollectible costs.

SBCI, moreover, has not made "appropriate adjustments" to its 2001 baseline data to measure forward-looking impacts in the common cost factor. Staff Ex. 8.0 (Chang adopting Patrick), p. 27. First, there are no adjustments made in the cost study to appropriately reflect the employee levels reduced since 2001 (*see* § V.B.6). SBCI also fails to remove expenses in excess of economic cost that would make its expense data appropriately forward-looking. An example of this type of failure is SBCI's inclusion of its "Transitional Benefit Obligation" estimate as a common cost. Second, SBCI's Common Factor Denominator should be re-estimated to incorporate the network investment changes that result from Staff's recommended changes to SBCI's LoopCAT, ACF, and Network Investment models.

2. Use of Regulated and Unregulated data

As noted in more detail in the Support Asset Factors section (§ **VI.C below**), Staff witness Mr. Hanson testified that SBCI's studies do not properly reflect the fact that not all of the building and land that SBC owns are used for providing regulated telecommunications services. Staff Ex. 6.0 (Hanson), pp. 23-4. Although approximately ***BEGIN CONF xx END CONF*** of the building space used by SBC is used by

unregulated affiliated companies, SBCI has not made any adjustment in its costs to reflect this fact. *Id*. By failing to make this adjustment, SBC is overstating its costs associated with buildings and land. *Id*. If the Commission adopts Staff's recommendation that these building and land costs be removed from the SAF and put into the common pool of costs, Staff recommends that these costs be reduced by ***BEGIN CONF xx END CONF*** to reflect the cost of SBCI's buildings and land attributable to non-regulated activities. *Id*.

3. Consistency of Numerators and Denominators

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

4. Productivity and Efficiency

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

B. Common Cost Factor

1. Development of the Denominator

The Common Cost Factor denominator used in SBCI's proposed shared and common cost studies is based on the Company's TELRIC estimates of network investment. As noted by Staff witness Mr. Lazare, Staff is recommending multiple changes to SBCI's network investment studies. See Staff Ex. 3.0 (Lazare). These changes include revisions to SBCI's fill factors, cost of money, economic lives, sales tax

rates, among others. SBC Ill. Ex. 7.0 (Barch), pp. 13-16. These changes flow through other cost models submitted by SBCI in this proceeding, namely, the LoopCAT model, ACF model, and Support Asset Model, into both TELRIC estimates and output figures that become inputs to the shared and common cost model. Failing to make corresponding changes to the shared and common cost inputs based on these revised network investment figures could cause distortions in Staff's proposed shared and common cost factor, in that Staff's estimate of direct costs would be based on un-revised network investment figures.

Moreover, as pointed out by Mr. Barch, "it follows that insofar as the TELRIC investments are adjusted in and of themselves, then the shared and common calculations relying upon such inputs likewise would have to be adjusted." SBC Ill. Ex. 7.0 (Barch), p. 17.

2. The 67XX Accounts (Including Retail Cost Adjustment)

In SBCI's proposed Shared and Common Cost Study, there is a description of the adjustments made to shared and common cost inputs to recognize certain expenses recovered through the "IL Service Order Computer Processing Cost Study." Staff's review of the Service Order Cost Study is described in the testimony of Staff witness Mark Hanson. Staff Ex. 6.0 (Hanson). Mr. Hanson recommends against recovering service order costs through non-recurring rates. Staff recommends, instead, that these costs should be recovered through Staff's proposed shared and common factor. As a result, labor costs associated with the mainframe computer system are "added back" in the S&C Cost Study.

SBCI has provided instructions in the Shared and Common Cost study that detail the accounts from which the amounts recovered in the Service Order Processing Costs Study were removed from the shared and common input accounts. The adjustment to recognize the removal of these service order processing costs from non-recurring rates is to add the SBCI-identified mainframe labor expense back into the information management account. This adjustment is made by adding *** BEGIN CONF xxxxxxxx END CONF *** to Account 6724 on Tab 2 of SBCI's S&C Cost Study. This adjustment effectively increases the numerator for Staff's proposed shared and common cost factor. Staff Ex. 8.0 (Chang adopting Patrick), pp. 47-48.

3. Transition Benefit Obligation

Staff proposes that the Transitional Benefit Obligation ("TBO") be excluded from Shared and Common Cost, and that TBO not be included in the rate calculations in any manner. Staff Exhibit 9.0 (Smith), p 8.

TBO is cost that occurred prior to 1992. It represents the difference between the recognition of employee benefits other than pensions ("OPEB") calculated based on an accrual accounting basis and calculated based on a cash accounting basis. Prior to 1992, SBCI recorded OPEBs using cash based accounting theory. SBC Ill. Ex. 7.0 (Barch), at 22-23; SBC Ill. Ex. 17.0 (Dominak), p. 5. Beginning in 1992, SBCI was required to record OPEB using accrual principles. In 1992, SBCI identified the amount of OPEB that would have been accrued and expensed through 1992 if accrual accounting had been used all along. SBC Ill. Ex. 17.0 (Dominak), pp. 5-6; Staff Exhibit 9.0 (Smith), pp 3-6. SBCI knew what the TBO cost was in 1992, because it was a past cost. SBCI obviously did not know what future OPEB cost was in 1992, and therefore, it

did not identify future OPEB cost during 1992. The difference between the past OPEB cost on an accrual basis and the past OPEB cost on a cash basis is the TBO. Staff Ex. 9.0 (Smith), at 6. All accounting and ratemaking theory aside, it is obvious that TBO, as opposed to OPEB, is a past cost because past records were used to calculate the amount of TBO.

SBCI, furthermore, had the option for financial reporting purposes of writing-off the entire amount of the TBO immediately. They also had the option to amortize the TBO over 18 years. The Company chose to amortize over an 18 year period. Staff Exhibit 9.0 (Smith), p 6. While the Company might claim that there was no option and that amortization over 18 years is required, the reason for the amortization period does not impact the nature of the cost or the suitability for its inclusion in UNE rates.

Staff proposes that TBO be excluded from UNE rates because it is a cost that resulted from past operations. The cost exists only because employees earned compensation for work performed prior to 1992. If work had not been performed prior to 1992, there would be no TBO. Tr. (Dominak Cross), pp. 429-430. It is unreasonable to suggest that TBO will be incurred as a result of work performed to provide UNE services in the future. And it is also unreasonable to hold future UNE customers hostage to the costs incurred to pay past employees for service provided in the past. Yet, that is the conclusion that must be reached if one is to accept SBCI's argument that TBO is a future cost to be recovered in UNE rates. SBC Ill. Ex. 7.0 (Barch), pp. 23-24. While OPEB is a future cost, expensed currently, resulting from the requirement to compensate employees in the future for work performed currently, TBO compensates employees for work performed in the past. It is illogical to include TBO cost incurred for

past work in UNE rates, just as it is illogical to include OPEB cost incurred for past work in UNE rates. SBCI, moreover, has failed to provide the Commission with any compelling basis for including TBO in UNE rates.

SBCI's attempt to compare TBO "… to a forward-looking equipment cost contained in a vendor's contract with a specified ending date" is misplaced. SBC Ill. Ex. 7.1 (Barch), p. 26. The TBO cost exists only because employees provided service in the past. The equipment cost exists because equipment will provide service in the future. No utility or vendor is going to sign a contract for the cost of equipment after the utility has used the equipment. In the case of TBO, the service has already been provided and the employees have received their payment, some of it in the form of deferred TBO. SBCI cannot go back and renegotiate the amount of TBO.

In an attempt to discredit Staff's position, SBCI unwittingly provides a compelling argument supporting the conclusion that the TBO is a past cost. In rebuttal testimony, SBCI witness Mr. Dominak (SBC Ill. Ex. 17.1, p. 4) quotes a portion of paragraph 152 of Financial Accounting Standards Board ("FASB") Statement of Financial Accounting Standards ("FAS") No. 106 (Staff Cross Ex. 16), which defines liabilities as:

> Liabilities are defined in paragraph 35 of FASB Concepts Statement No. 6, *Elements of Financial Statements*, as 'probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events' (footnote references omitted). FASB 106, paragraph 152.

Likewise, FASB Concepts Statement No. 6, *Elements of Financial Statements*, provides that:

> A liability has three essential characteristics: (a) it embodies a present duty or responsibility to one or m ore other entities that entails settlement

> by probable future transfer or use of assets at a specified or determinable date, on occurrence of a specified event, or on demand, (b) the duty or responsibility obligates a particular entity, leaving it little or no discretion to avoid the future sacrifice, and (c) *the transaction or other event obligating the entity has already happened*.
>
> FASB Concepts Statement No. 6, para. 36 (emphasis added).

Liabilities including, TBOs, clearly result from past events. While cash will be transferred to other entities in the future, the event (in this case the promise of future compensation for past work performed) occurred in the past. This is consistent with normal on-going financial reporting. If a company purchased a ream of paper on credit on December 30, 2002, the liability and expense would be reported in 2002 even though the actual transfer of cash to the vendor might not occur until January 10, of 2003. Cost is incurred when the transaction occurs. In the case of the TBO, the transaction, work for deferred compensation occurred in the past. It is only the settlement of the obligation to pay the employees that will occur in the future.

While the Company identifies a couple of examples in which the Commission allowed the recovery of TBO, those examples are irrelevant to this Docket. SBC. Ill. Ex. 17.0 (Dominak Rebuttal), p 8. The examples cited provided for recovery of TBO under traditional embedded cost/rate of return ratemaking theory. This docket is not about traditional embedded cost/rate of return ratemaking theory. The goal in this proceeding is to set rates which encourage competition. Clearly, TBO is a cost that is in addition to the current TELRIC, or incremental cost. TBO is not incurred in order to produce the next unit of production.

This issue is simple. If TBO, which represents past OPEB, is to be amortized for UNE costing purposes, then current OPEB should also be amortized for UNE costing

purposes. What makes more sense is that OPEB be included in the UNE cost currently. This means that TBO, past OPEB cost, is not recognized and that UNE rates include a full year, and no more than a full year, of OPEB cost. Based on the foregoing facts, Staff recommends that TBO be excluded from Shared and Common Cost, and that TBO not be included in the rate calculations in any manner.

4. Pension Settlement Gains

Pensions Settlement Gains occur when a large group of employees are separated from employment by the company. When this occurs the amount of funds necessary to provide future pension benefits decreases. Thus, portion of previously recorded pension expense can in essence be reversed, in effect reducing the current years pension expense. Staff Ex. 20 (Smith), p. 11.

Staff witness Mr. Smith testified that based on review of Messrs. Starkey and Fischer's testimony, it appears that these witnesses are basing their adjustment on the assumption that Pension Settlement Gains will occur with normal frequency in the future. *Id*.

Mr. Smith does not agree with the Joint CLECs' position. Mr. Smith explained that while certain events have occurred in the recent past to create conditions that have resulted in pension settlement gains, he is aware of no evidence to support a conclusion that pension settlement gains will occur regularly in the future. Mr. Smith testified that, in his opinion, this adjustment is inappropriate. Staff Ex. 20 (Smith), p. 12.

5. Merger Savings

6. Employee Levels

Staff Witness Mr. Thomas Smith recommends an adjustment to reduce common expense to reflect a decrease in the number of employees. Staff Exhibit 9.0 (Smith), pp. 13 – 14. Mr. Smith sponsored, Sched. 9.3 to Staff Exhibit 9.0 (Smith Direct), which shows that the number of employees currently on payroll is less than the number of employees on payroll during the period of time forming the base costs utilized in this docket. It is eminently reasonable that employee cost for UNE pricing reflect the future number of employees.

The Company indicates in rebuttal testimony that the reduction in employees started to occur in 2001. SBC Illinois Ex. 7.1 (Barch), p. 31. However, no data was supplied to discredit Mr. Smith's evidence on Schedule 9.3, which clearly shows that the employee level at the end of 2002 was significantly less than during 2001. While, we can *speculate* that employee reductions were occurring in 2001, we *know* that they occurred in 2002.

SBCI witness Mr. Barch also suggests that because of the way shared and common cost is calculated, any decrease in the number of employees could result in an increase in the amount of cost allocated to UNE services. SBC Illinois Ex. 7.1 (Barch), p. 31. It is entirely inappropriate to assume that a reduction in employees would result in an increase in expense, unless a reasonable calculation of the change in allocated expense is provided with detail. In this case, SBCI argues that because of the intricacies of the rate setting formula, cost will increase, because cost decreases. Without supporting calculations, the Company's argument is illogical on its face.

In rebuttal testimony, Mr. Smith reiterated that the number of SBC employees has decreased and that any suggestion on the part of the Company that such decrease

in expense could actually lead to an increase in expense is ludicrous. ICC Staff Exhibit 29.0 (Smith), pp. 13-14.

SBCI, in surrebuttal testimony, focused on the workings of the Shared and Common Factor. SBC Illinois Ex. 7.2 (Barch), pp. 4 – 5. SBCI, however, provided no empirical evidence to rebut the evidence of employee reductions contained in Staff Schedule 9.3. The fact that rebuttal evidence was not provided is an indication that employee reductions did occur in 2002 contrary to SBCI's Company's position. For all of these reasons, Staff recommends an adjustment to reduce common expense to reflect a decrease in the number of employees.

7. Agreed Upon Issues

a) OSS Testing Costs

In response to recommendations by Staff witness Dr. Melanie Patrick, as adopted by Staff witness Ms. Karen Chang,[55] SBC removed the OSS expenses from its Shared and Common study. *See* SBC Illinois Ex. 7.1 (Barch), p. 75-76.

[55] See Staff Ex. 8.0 (Patrick/Chang), at 39 ("[T]he OSS test is not a forward-looking operation. As a merger condition, it is a one-time event that is unlikely to be repeated. Therefore, incorporating the entire amount of the test, as proposed by SBCI, in forward-looking UNE rates will result in over-recovery of the test expenses, as the test will not re-occur in the future.").

b) Tier 1 Remedy Payments

In response to recommendations by Staff witness Dr. Melanie Patrick, as adopted by Staff witness Ms. Karen Chang,[56] SBC removed the Tier 1 Remedy Payments from its Shared and Common study. *See* SBC Illinois Ex. 7.1 (Barch), p. 76.

c) Digital Divide Payments

In response to recommendations by Staff witness Dr. Melanie Patrick, as adopted by Staff witness Ms. Karen Chang,[57] SBC removed the Digital Divide expense from its Shared and Common study. *See* SBC Illinois Ex. 7.1 (Barch), p. 76.

d) Non-Chicago Sales Tax

See Section III.C.10.f) above.

C. Shared Cost Factor

[56] See Staff Ex. 8.0 (Patrick/Chang), at 42-43 ("Remedy payments are intended to be an incentive for RBOCs to provide good quality wholesale service, or at least service that meets agreed-to standards, and are intended to present the RBOC with a choice of invest in their networks to support quality service provision, or face the consequences in increased wholesale quality service penalties. * * * Through UNE rates, SBCI is recovering its investment in its network. This recovery, represented in its TELRIC study, should be sufficient to support service that meets agreed-to standards. If SBCI were allowed to recover these remedy amounts through UNE rates charged to competitors, a perverse incentive structure would result.").

[57] See Staff Ex. 8.0 (Patrick/Chang), at 46 ("Section 13-502.5 appears to be very much in the nature of a compromise and settlement of allegations that SBCI improperly classified retail services. It is not clear why CLECs, who had no part in SBCI's classification of these services, should bear any part of the costs associated with settlement of controversies regarding the alleged improper classification.").

1. Definition of Wholesale Shared Costs

2. Uncollectible Expense

Because uncollectible expense is a function of revenue, Staff recommends that uncollectible expense be incorporated into rates by increasing rates by the percentage relationship of historic uncollectible expense to revenues. Staff Exhibit 9.0 (Smith), pp. 8-11. SBCI witness Mr. Dominak argues that because UNE services are relatively new, we do not have adequate history upon which to identify the relationship between bad debts and revenues. SBC Ill. Exhibit 17.0 (Dominak Rebuttal), pp. 18-21. He also expresses concern that Staff is mixing portions of three different accounting methods. *Id*., pp. 20-21.

Staff witness Mr. Thomas Smith pointed out, however, that while UNE services are relatively new, a historical record of the relationship between wholesale revenues and bad debts does exist. Staff Exhibit 29.0 (Smith Rebuttal of SBC), pp. 9 -12. Ideally, Staff would like to have historical information for several years of UNE revenues and bad debts. Staff, however, must utilize the available information; which in this case is several years of historic records of wholesale revenues and bad debts. Staff Exhibit 9.0 (Smith), Sched. 9.1. As to the question of mixing accounting methods, the goal of this proceeding is to identify proper bad debt expense for inclusion in UNE rates, not to identify accounting methods.

Mr. Dominak indicated that Staff improperly calculated the two year bad debt factor as ***BEGIN CONF xxxxx END CONF*** and that the correct calculation is ***BEGIN CONF xxxxx END CONF***. SBC Illinois Exhibit 17.1 (Dominak Surrebuttal),

p. 15. Staff agrees that it incorrectly inverted its data and that the correct calculation of its two-year bad debt factor is ***BEGIN CONF xxxxx END CONF***.

Mr. Dominak also continues to argue that factors other than the amount of revenue impact bad debts. SBC Illinois Exhibit 17.1 (Dominak Surrebuttal), pp. 12 - 15. As previously discussed, however, while other factors might impact bad debts, a history of the relationship between wholesale revenues and bad debts exists, and this relationship should be used to develop a bad debt factor to be applied to the UNE rates, rather then developing bad debt expense as proposed by SBC. Accordingly, for the reasons noted above, Staff recommends that uncollectible expense be incorporated into rates by increasing rates by the percentage relationship of historic uncollectible expense to revenues.

3. Wholesale Marketing Expense

Staff witness, Mr. Thomas Smith, testified that SBCI included marketing cost in the base used to develop its UNE rates in this proceeding. Staff Ex. 9.0 (Smith Direct), pp. 12 – 13. It is Mr. Smith's contention that SBCI does not actively market its UNE services and that in fact when given the opportunity to respond to specific data requests seeking evidence that it markets UNE services, it failed to provide requested evidence. Staff Ex. 9.0 (Smith Direct), p. 13. Consequently, it is Mr. Smith's recommendation that because SBCI offers no evidence that it markets UNE service, the marketing cost should not be included in UNE rates. *Id*.

In rebuttal testimony, Mr. Barch, indicated that Marketing Expense includes customer assistance and/or customer information expense in addition to selling expense. SBC Illinois Ex. 7.1 (Barch), pp. 38 – 40. Mr. Barch, however, failed to

provide any data to support his claim. Mr. Barch failed to provide a schedule or otherwise identify the amount of selling expense, the amount of customer assistance expense, or the amount of customer information expense that was included in what is termed marketing expense.

Mr. Smith agreed that it was possible that "marketing" expense included customer assistance and information expenditures. ICC Staff Exhibit 29.0 (Smith Rebuttal), p. 13. Mr. Smith, however, noted that, "…the Company has not specifically identified the amount of its marketing expenses that are for promotional, informational, assistance and negotiating purposes." *Id*. If the Commission is to make an informed decision as to how much marketing expense is properly recovered in UNE rates, it is critical that SBCI identify the amount of its marketing expenses that are for promotional, informational, assistance and negotiating purposes.

In response, SBCI observed that this issue is a matter of semantics. SBC Illinois Ex. 7.2 (Barch Surrebuttal), p. 17. This observation is at best misleading. The issue is how much "marketing" cost is for the purpose of providing information and assistance to customers and how much is for the purpose of selling product. The term marketing means to sell. If this issue is a matter of semantics, it is because SBCI has labeled cost as a sales or marketing expense and now claims that the cost is something entirely different.

While SBCI acknowledges Mr. Smith's concern "…that SBCI has not sufficiently disaggregated 'promotional' expenses from the other functions…"; it minimizes those concerns when it suggests that "…*nearly all* of the costs in these accounts fall into the informational, assistance and negotiating categories that Mr. Smith finds reasonable."

SBC Illinois Ex. 7.2 (Barch), pp. 17-18. If indeed nearly all costs are something other than sales cost, then SBCI is obligated to quantify the amount that is sales cost and the amount that is not sales cost. To suggest that sales cost should be included in the UNE rates because most cost is not sales cost is utterly devoid of reason. Accordingly, for all the reasons set forth above, Staff recommends that because SBCI offers no evidence that it markets UNE service, the marketing cost should not be included in UNE rates.

4. Calculation of Wholesale Shared Cost Denominator

SBCI's proposed Shared Cost Factor uses an estimate of "Wholesale Direct Costs" in the denominator. Staff Ex. 8.0 (Chang adopting Patrick), p. 23. This estimate is based on SBCI's estimated "Total Direct Costs" multiplied by the ratio of wholesale expenses to retail expenses. *Id*. SBCI's proposed Shared Factor denominator contains several inherent flaws, which are as follows.

The most significant problem with this denominator lies in the purpose SBCI assigns to this calculation. Staff Ex. 8.0 (Chang adopting Patrick), p. 23. SBCI aims to assign a portion of its total network cost to its wholesale operations. *Id*. This exercise is ill-advised, in that only a model of total network cost can be realized; any model of wholesale network is theoretically invalid. *Id*. According to regulatory economic theory, the only network that exists is the entire network. *Id*. There exists no separate "wholesale" or "retail" network whose costs can be estimated separately from the entire network.[58] *Id*.

[58] As pointed out by Dr. Staranczak in Staff Ex. 2.0, the question at hand concerns competition based on an unbundled network platform. As he states, UNE-P competition does not lead to concerns about stranded plant, because UNE-P-based competition relies on the same plant used to serve retail (continued…)

Staff, furthermore, disagrees with the methodology SBCI employed in the calculation of the wholesale direct costs. SBCI proposes a shared costs calculation in which the denominator, wholesale direct costs, does not accurately employ or reflect cost causation principles. Staff Ex. 28.0 (Chang), pp. 5-6. SBCI developed the denominator in a manner that is not consistent with previous ICC orders, and, moreover, is not mathematically acceptable, as explained below.

Mr. Palmer explained the methodology that the Commission, in its TELRIC Order[59], directed SBC to use developing a shared cost loading for UNEs as: "The basic methodology used in [the TELRIC Order] developed a shared cost loading for UNEs by comparing the forward-looking shared costs of UNEs, the numerator, with total UNE direct costs (i.e., the total extended TELRIC of all UNEs), the denominator. Extended TELRICs were computed by multiplying the unit TELRIC of each UNE by its forecasted demand and then summing the result for all UNEs." SBC Ill. Ex. 14.0 (Palmer), p. 39.

SBCI, however, did not in fact develop its shared cost loading submitted in this proceeding, specifically, the total UNE direct costs denominator, in the manner ordered by the Commission and described by Mr. Palmer. Staff Ex. 28.0 (Chang), p. 6. In the company's revised shared and common model and cost study, the wholesale direct cost is a product of total company direct costs multiplied by a wholesale direct cost percentage. SBC Ill. Ex. 7.1 (Barch), Sched. DJB-R12, Tab 1 – Result, line 36. According to SBCI, this wholesale direct cost percentage represents the proportion of the wholesale direct costs in relation to the total direct costs which, when multiplied by

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customers. In the same way, as long as we are evaluating the costs of SBCI's network to determine lease rates, we are only engaged in an exercise of modeling a single network.

[59] *Second Interim Order*, ICC Docket Nos. 96-0486 / 96-0569 (consol.) (February 17, 1998).

the company total direct cost, yields an SBCI wholesale direct cost. *Id*. The way the percentage was calculated was an inaccurate presentation of the company's wholesale versus total direct costs.

The SBCI wholesale direct cost percentage is actually the result obtained when the AIT Industry Markets Direct costs are divided by the Total AIT Company Direct costs. Staff Ex. 28.0 (Chang), p. 7. It compares the regionalized SBC Industry Markets (IM) accounts (numerator) with AIT total direct operating expenses (denominator), and excludes various accounts in both. The numerator excluded ** BEGIN CONF xxxxxx xxxxxx END CONF*** of various items (***BEGIN CONF xxxxx END CONF *** million in Account Team, ***BEGIN CONF xxxxx END CONF*** Million in Marketing, and *** BEGIN CONF xxxxxx END CONF*** million of uncollectibles), prior to applying the AIT region allocation, and the denominator, the AIT total direct operating expenses excluded costs in Accounts 6610, 6710, 6720, and 6790. SBC Ill. Ex. 7.1 (Barch), Sched. DJB-R12, Tab 2 – Inputs, Line 212 to 223. The resulting wholesale direct cost percentage is understated in that it does not accurately present the wholesale direct costs in proportion to the total direct costs for several reasons.

First, the amount excluded from the numerator calculation is greater than the amount excluded in the denominator. Further, the numerator numbers appear to be estimates of SBC data while the denominator is an AIT actual number from ARMIS.[60] Staff Ex. 28.0 (Chang), p. 8. This ratio is not meaningful because SBCI is comparing a presumably forward looking estimate of costs with an existing cost figure, and hence the comparison is not valid and should not be used to measure against any shared cost. *Id*.

[60] Automated Reporting Management Information System, a system of publicly available telecommunications company cost data.

Second, the AIT regional allocation was based on the SBC Industry Market Local Operations Center Expenses, a small portion of the company operation that cannot and does not adequately reflect or represent the entire regional wholesale direct costs in proportion to the total direct costs. *Id*. The wholesale direct cost percentage calculated by the Company is therefore not acceptable and should not be used in determining the wholesale direct costs. *Id*.

SBCI witnesses Mr. Barch testified that:

> Ms. Chang misunderstands why SBCI did not rely upon ARMIS for the numerator. It is simply that Industry Markets is neither an ARMIS account nor subaccount, nor a collection of ARMIS accounts, nor subaccounts. Therefore, ABCI had to rely upon internal data.

SBC Ill. Ex. 7.2 (Barch), p. 21.

The internal Industry Market data, however, is at the SBC corporate level and is then narrowed down to the regional level by applying the proportion of AIT regional Industry Markets Local Operations Center Expenses from the previous year 2000. It is Staff's position that internal Industry Market data is inappropriate for measuring the relationship between the Total Direct Costs and the Wholesale Direct Costs when 23% of the Industry Market balance was identified as shared costs in the Shared Factor numerator. See SBC Ill. Ex. 7.2 (Barch), p. 20 ("The numerator starts with the Industry Market's total expenses for 2001, less those for Marketing functions and uncollectible expense, since these are already identified in the Shared Factor numerator as shared costs. This amount of regional SBC Midwest direct Industry Markets expenses was divided by the total operating expenses (regulated, direct) drawn from 2001 ARMIS data for the Ameritech region.").

In addition, Staff finds it implausible that all five companies of SBC in the old Ameritech region have the same characteristics of wholesale direct costs verses total direct costs percentage. In fact, it is Staff's position that SBCI's proposed method of developing the wholesale cost percentage utterly fails to state the wholesale direct costs, the denominator for shared costs factor, in a manner that will yield an accurate shared costs factor computation. Staff Ex. 28.0 (Chang), p. 8.

Staff, moreover, has been unable to identify *any* relevant shared costs to assign to the UNE services. Staff Ex. 28.0 (Chang), p. 9. Staff witness Mr. Smith recommends the removal of wholesale marketing costs unrelated to UNEs and that the Uncollectible allowance percentage be considered after common costs and prior to arriving at the UNE rates. Staff Ex. 9.0 (Smith), pp. 8-13. Alternatively, Staff recommends that if any of the wholesale marketing costs are to be allocated to UNEs, it is more appropriate to add those to common costs given the lack of evidence of cost causation. relationship. Staff Ex. 28.0 (Chang), p. 9. Staff witness Ms. Chang testified at the evidentiary hearing that "[I]f part of [the] shared cost is [supported by] eviden[ce] and supported that they are shared costs for UNEs, then true, we should have a wholesale direct cost in the denominator for the shared cost factor." Tr., p. 1967. In other words, hypothetically, had SBCI provided evidence supporting properly identified shared costs, then Staff would have had no objection to including such shared costs in the numerator, and dividing them over the wholesale direct costs in the denominator. It is Staff's proposal for the denominator to be the extended TELRIC from all the wholesale services as recommended in the commission order 96-486/96-569 (p. 53).

Staff recommends, based on the SBCI revised shared and common cost study, which contains changes recommended by Staff (*see* § V.B.7 Agreed Upon Issues), a 10.22% factor[61] for the shared and common costs and a 3.93% factor for uncollectibles. Staff Ex. 28.0 (Chang), p. 10, and Sched. 28.02. Finally, Staff recommends that the Shared and Common factor should be extended from the base TELRIC costs and multiplied by the Uncollectible fraction as shown below:

UNE rate = TELRIC x (1 + S & C factor) x (1 + uncollectible factor)

VI. Annual Charge and Other Factors

A. Annual Charge Factors

Annual Charge Factors ("ACFs") are factors that are applied to the total investment for a piece of network equipment to derive the total annual cost of providing the equipment. Staff Ex. 4 (Koch Direct) at 24. Thus, ACFs develop the annual revenue required in order to provide for a return of (i.e., depreciation costs) and a return on (i.e., cost of capital) capital investments, plus coverage of various operating expenses related to that investment (e.g., taxes and maintenance and repair). Id. In this regard, each ACF consists of two component factors -- the Capital Cost Factor (the sum of the cost factors for depreciation, cost of money, and income tax) and the Operating Expense Factor (the sum of the cost factors for maintenance, other expense, and ad valorem tax). Id.

[61] This figure is based upon evidence adduced at the surrebuttal stage, *see* SBC Ex. 7.2., Schedule DJB-S01, as adjusted by Staff, and has not been incorporated into Staff's rate calculation, but would result in *de minimis* reductions to all rates proposed by Staff.

Except for the automatic adjustment of maintenance expense as fill factors increase, Staff did not take issue with the methodology employed by SBCI to calculate ACFs. Id. Staff did, however, take issue with a number of inputs used in SBCI's ACF Study. Specifically, Staff took issue with the sales tax rate[62] (discussed in Section III.C.10.f) above), the cost of capital, cost of debt and debt-to-equity ratio (discussed in Section III.B.3 above), and average service lives and salvage values (discussed in Section III.B.2 above). Id. at 24-25. Staff witness Mr. Koch was responsible calculating revised ACFs using SBCI's ACF Study by incorporating the revised inputs recommended by other Staff witnesses. Id. ACFs are inputs into the LoopCAT model and also impact the development of the shared and common cost factor. Id. at 25-26. Staff's proposed ACF's were originally presented in Schedule 4.01 to Mr. Koch's direct testimony, but were updated in Mr. Koch's rebuttal testimony in Schedule 24.04P to reflect changes made by SBCI to its ACF Study worksheet in rebuttal. Staff Ex. 4 (Koch Direct), Schedule 4.01P; Staff Ex. 24 (Koch Rebuttal to SBCI) at 28-29, Schedule 24.04P. Staff recommends that its proposed ACFs as set forth in Schedule 24.04P be utilized in setting SBCI's UNE loop rates. Id.

1. Adjustments to Maintenance and Other Expense Factors

As noted above, the one aspect of SBCI's ACF Study methodology that Staff found objectionable was the automatic adjustment of maintenance expense as fill factors increase. Staff Ex. 4 (Koch Direct) at 24, 26-27. SBCI witness Mr. White argued

[62] The dispute as to sales tax rate was later resolved based on SBCI's incorporation of a reduced sales tax rate in its revised LoopCAT study submitted with its rebuttal filing. Staff Ex. 24 (Koch Rebuttal to SBCI) at 28.

that as fill factors increase, the cost of maintaining plant and equipment also increases. SBCI Ex. 8.0 (White Direct) at 15. Staff witness Mr. Green explained that Mr. White misstates the nature of this relationship because he models SBCI's current embedded network rather than an efficient, forward looking network required by TELRIC. Staff Ex. 10 (Green Direct) at 16. For example, Mr. Green explained that congested manholes (such at that depicted in SBCI Schedule RSW-3) lead to higher maintenance cost regardless of the individual cable fills. Id. at 17. Mr. Green disagreed with Mr. White's assertion regarding the relationship of fills and maintenance expense, and provided a graph illustrating that if the effects of embedded inefficiencies were removed (as one would expect under TELRIC principles) the relationship of fills to maintenance expense (as shown on Mr. White's graph and table in Schedule RSW-4) is not substantiated. Id. at 17-18. In as much as there is no credible basis to conclude that changes need to be made to ACFs as a result of Staff's fill factor adjustments, this improper aspect of SBCI's ACF Study was avoided in calculating Staff's revised ACFs. Staff Ex. 4 (Koch Direct) at 27.

2. Ad Valorem Factor

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

3. Capital Cost Factor

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

B. Investment Factors

C. Support Asset Factors (Including Reclassification to Common Costs)

D. Inflation/Deflation Factors

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

E. Productivity Offset

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

F. Depreciation and Net Salvage

Staff did not address this issue in its testimony in this proceeding, but reserves the right to respond to any arguments raised in the parties' initial briefs.

VII. Imputation and Price Squeeze

A. Application of Imputation Requirements to this Proceeding

Any increase to UNE loop rates resulting from this proceeding would require that SBC's retail business network access lines satisfy a so-called imputation test, as established by the General Assembly in Section 13-505.1 of the Public Utilities Act. This Section provides in relevant part that:

> a) This Section applies only to a telecommunications carrier that provides both competitive and noncompetitive services. **If a carrier provides noncompetitive services or noncompetitive service elements to other telecommunications carriers for the provision by the other carriers of competitive services**, switched interexchange services, or interexchange private line services or to other persons with which the telecommunications

carrier also competes for the provision by those other persons of information or enhanced telecommunications services, as defined by the Federal Communications Commission, **then the telecommunications carrier shall satisfy an imputation test for each of its own competitive services, switched interexchange services, or interexchange private line services, that utilize the same or functionally equivalent noncompetitive services or noncompetitive service elements.** The purpose of the imputation test is to determine whether the aggregate revenue for each service exceeds the costs, as defined in this Section, to be imputed for each service based on the telecommunications carrier's own routing arrangements. The portion of a service consisting of residence untimed calls shall be excluded from the imputation test. The imputed costs of a service for purposes of this test shall be defined as the sum of:

(1) specifically tariffed premium rates for the noncompetitive services or noncompetitive service elements, or their functional equivalent, that are utilized to provide the service;

(2) the long-run service incremental costs of facilities and functionalities that are utilized but not specifically tariffed; and

(3) any other identifiable, long-run service incremental costs associated with the provision of the service.

....

220 ILCS 5/13-505.1 (emphasis added)

The Commission has promulgated rules to implement Section 13-505.1. *See, generally* 83 Ill. Admin. Code 792.10 *et seq*. These rules require a carrier that provides competitive and noncompetitive services to file imputation studies under the following circumstances:

[W]henever a new service is subject to Section 13-505.1 of the Act or an existing service becomes subject to Section 13-505.1 of the Act. Circumstances under which the tests shall be filed include, but are not limited to, the following:

...

3) When any tariff is filed that increases rates for a noncompetitive service or a noncompetitive service element, or its functional equivalent, which is utilized in providing a service subject to imputation.

83 Ill. Admin Code §792.30

It is clear that the UNE loops for which SBC proposes rate increases are properly classified as non-competitive service elements. *See, generally,* SBC Ex. 1.0. Moreover, regardless of the view the company may take regarding the legality and necessity of the filing of tariffs, the fact remains that it has filed them here. Thus, whether an imputation test is required in this proceeding turns on whether the UNE loop is "utilized in providing a service subject to imputation."

The only reasonable conclusion is that the UNE loop is indeed, at the very least, "a noncompetitive service element, or its functional equivalent, which is utilized in providing a service subject to imputation." First, competitors can – indeed very often must – use the UNE loop to provide a service subject to imputation (i.e., business network access line services). SBC's business access services are undoubtedly competitive services. 220 ILCS 5/13-502.5(b).[63]

It is a somewhat – although not much – closer question whether business access line services provided by SBC "utilize[s] the same or functionally equivalent

[63] The General Assembly declared competitive all business services provided by carriers subject to alternative regulation under Section 13-506.1. SBC is the only such carrier in the state. *See, e.g.*, *Final Order*, Illinois Bell Telephone Company: Application for Review of Alternative Regulation Plan / Petition to Rebalance Illinois Bell Telephone Company's Carrier Access and Network Access Line Rates / Citizens Utility Board and People of the State of Illinois, ex rel. James E. Ryan, Attorney General of the State of Illinois vs. Illinois Bell Telephone Company d/b/a Ameritech Illinois, ICC Docket Nos. 98-0252 / 0335; 00-0764 (consol.) (December 30, 2002).

noncompetitive services or noncompetitive service elements [as those SBC provides to competitors to provide the same service,]" specifically the UNE loop. *See* 220 ILCS 5/13-505.1(a).

A "telecommunications service" within the meaning of the Public Utilities Act is:

> [T]he provision or offering for rent, sale or lease, or in exchange for other value received, of the transmittal of information, by means of electromagnetic, including light, transmission with or without benefit of any closed transmission medium, including all instrumentalities, facilities, apparatus, and services (including the collection, storage, forwarding, switching, and delivery of such information) used to provide such transmission and **includes access and interconnection arrangements and services.**

220 ILCS 5/13-203 (emphasis added)

The General Assembly clearly intended to include wholesale products and services within the meaning of "telecommunications services". Thus, UNEs clearly fall within the ambit of "noncompetitive services … utilized to provide the service subject to imputation."

Even if the Commission is, for whatever reason, unwilling to accept this, the fact remains that the UNE loop is, at the very least, "a noncompetitive service element or its functional equivalent … utilized to provide the service subject to imputation" within the meaning of Section 13-505.1. In the absence of a statutory definition that indicates that the legislature had a different intent (certainly the case here with respect to "service element"), words contained in statutes must be given their ordinary and popularly understood meanings. In re C.N., 196 Ill. 2d 181, 201; 752 N.E. 2d 1030; 256 Ill. Dec. 788 (2001). The ordinary and popularly understood definition of the word "element" relevant to this proceeding is "a component part or quality, often one that is basic or

essential." D. Guralnick, Ed., Webster's New World Dictionary, College Edition (2nd ed. 1980). Accordingly, the UNE-L is a "noncompetitive service element."

If the Commission wishes to ascribe a technical meaning to the word "element" or the phrase "service element", the result is the same. The UNE loop is, without question, an unbundled network *element* within the meaning of Section 251(c) of the federal Telecommunications Act, leading inexorably to the conclusion that it is a "noncompetitive service element" as a matter of Illinois law.

Moreover, even if, by some stretch, it could be found that the UNE loop is not a "noncompetitive service" or "noncompetitive service element", it can scarcely avoid being the "functional equivalent" of a noncompetitive service element. Clearly, the General Assembly sought to have imputation apply to a broad range of services and elements.

This is unsurprising, because the clear purpose of imputation is to make certain that ILECs cannot engage in anticompetitive pricing. Staff Ex. 4.0 at 29. When CLEC provisioning of a competitive service utilizes noncompetitive inputs such as UNEs, the ILEC that provides such noncompetitive elements – here, obviously SBC – has a potential advantage over other carriers. Staff Ex. 4.0 at 30. Although business access service is classified as competitive as a matter of law, *see* 220 ILCS 5/13-501(a), SBC controls the market for the noncompetitive elements necessary to provision the competitive service. Staff Ex. 4.0 at 30. This gives rise to the potential for a "price squeeze" – where the carrier that controls the market for noncompetitive elements lowers its retail price (or raises rates for noncompetitive "inputs" used by competitors) to

the point where CLECs cannot offer the identical service at a competitive price without incurring losses. Id. Over time, the market for the competitive service will become decreasingly competitive if the ILEC is permitted to engage in this type of pricing. Id. This underscores the necessity of conducting imputation tests in this proceeding.

Imputation sets an imputed cost that is, in essence, a proxy for the cost at which the competitive carrier could provide the service. Staff Ex. 4.0 at 30. If the incumbent carrier prices the competitive services below its imputed costs, the price squeeze described above will occur, making it difficult (if not impossible) for competing carriers to obtain customers profitably. Id. In order for there to be a level playing field for the competitive service, Section 13-505.1 places a price floor on the amount that the incumbent local exchange carrier can charge for the competitive service, which is equal to the imputed cost of providing the service. Id.

At the time of filing its initial rate proposal, SBC conceded that retail business access line rates would fail imputation if its proposed UNE loop rates were adopted. SBC Ex. 1.0 at 23, *et seq*.; Tr. at 175; *see also* Imputation Tests filed by SBC, December 24, 2002. However, SBC first contends that Section 13-505.1 may not apply, and intimates that it will attempt in legal argument to assert that it does not. SBC Ex. 1.0 at 23. As seen above, Section 13-505.1 does indeed apply, and any argument asserting that it does not should be viewed with the utmost suspicion and skepticism.

SBC witness Eric Panfil also attempts to argue that the "price squeeze" analysis conducted by SBC witness Dr. Debra Aron is a preferable alternative to the statutorily mandated imputation test. *See* SBC Ex. 1.1 at 14, 23; SBC Ex. 2.0 at 30, *et seq*; Staff Ex. 24.0 at 17, 18.

This is not persuasive. First, SBC does not address, because it cannot, the fact that the "test" performed by Dr. Aron is not an imputation test within the meaning of Section 13-505.1. *See* Staff Ex. 24.0 at 18-19. Even Dr. Aron herself does not contend that her price squeeze analysis is an imputation test per se, or that her analysis is sufficient to satisfy the requirements of Section 13-505.1 or Code Part 792 requirements. Second, even if the Commission accepts Dr. Aron's test as an imputation test, which it ought not to do, the test nonetheless fails to analyze the proper information. This is demonstrated in the following section.

B. Proper Application of Imputation Tests

1. SBC's Proposed Test

Dr. Aron's price squeeze analysis is not a proper imputation test, and certainly does not satisfy the requirements of Section 13.505.1. Among other deficiencies, Dr. Aron commits a fatal error when she improperly utilizes a figure for "revenue including access." Id. This revenue figure includes revenue attributable to "central office features." Id. "Central office features" include call waiting, caller ID, call forwarding, three-way calling, and automatic callback. Tr. at 223-224. Central office features are very high margin services, and are generally easy to provision and have low incremental provisioning costs. Tr. at 225-226. Through improper inclusion of revenue from all of these services, SBC effectively guarantees that its current rates for business access line services will satisfy imputation. In fact, under Dr. Aron's price squeeze analysis, SBC's business network access line rates would pass even if they were reduced to zero! *See* Staff Exhibit 24.0 at 23. Such a perverse result clearly turns imputation on its head, and must not be accepted by the Commission.

The defects in Dr. Aron's approach – and by definition any SBC imputation test based on this approach and using Dr. Aron's figures, – are obvious.[64] Dr. Aron essentially constructs a retail equivalent of some sort of "average UNE-P" rate and examines whether SBC's proposed UNE loop rates will pass such "imputation." This is an understandable ruse on SBC's part, since this approach ensures that SBC's proposed UNE loop rates will satisfy these conditions.

An appropriate imputation test for UNE loops in this proceeding must compare the rates for SBC retail network access lines (NAL) to the sum of the rates for the appropriate comparable set of UNE elements. This set of UNE elements is composed of those UNEs – and no more than those UNEs - that are absolutely required to enable CLECs to provide functionality equivalent to that of an SBC network access line. That basic functionality is dial tone, and the UNEs required for CLECs to provide dial tone are the UNE loop and the UNE port. This being the case, SBC's attempt to include revenues associated with central office features is particularly improper. Central office features have nothing directly to do with the provision of dial tone. SBC clearly seeks to include these features not for any good reason, but rather because these features, with their very high margins, enable SBC's business access rates to pass imputation.[65] This, of course, is neither a lawful or principled reason for inclusion of vertical services in a UNE loop imputation test.

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[64] *See* SBC Ex. 2.1, Schedule ELP-R1.

[65] Indeed, the margins on these services are so high that SBC could reduce business access rates to zero, and they would still pass imputation. Staff Ex. 24.0 at 23. This, of course, trenchantly shows how useless SBC's imputation proposal is, since a retail rate of zero would create a price squeeze in 100% of imaginable circumstances.

Permitting SBC to conduct imputation tests in the manner it proposes in this proceeding would permit precisely those evils that the General Assembly sought to prevent by enacting Section 13-505.1. Where a CLEC's wholesale costs exceed SBC's retail ones, the Commission cannot reasonably be expected to believe CLECs can enter the market and serve customers, or even remain in it and continue to serve customers. Staff Ex. 4.0 at 29-30. This is particularly true for lower-margin, lower volume usage customers. Staff Ex. 24.0 at 21.

In summary, then, SBC's proposed imputation approach and methodology are completely defective and deficient. They should be rejected.

2. Joint CLECs Proposed Test

Joint CLEC witness Dr. Ankum's proposed imputation tests improperly inflate costs. *See* Joint CLEC Ex. 3.0 at 7 *et seq*. The results of his proposed inflation of costs are as dramatic as the results of SBC's improper revenue inflation, albeit in the "opposite" direction. Under Dr. Ankum's proposed application, SBC's current network access line rates would *fail* even if SBC's UNE loop rates were reduced to zero in Access Areas A and B![66] Id. at 10 - *17*.

The basic reasons for Dr. Ankum's perverse results are his improper inclusion of retail related expenses to imputed costs, and the improper inclusion of nonrecurring

[66] I mputed costs exceed revenue in Dr. Ankum's test by $13.26 in Access Area A, $23.73 in Access Area B, and $24.33 in Access Area C. See Joint CLEC Ex. 3.0 at 17. The UNE loop rates imputed on the cost side of Dr. Ankum's tests are $11.62 in Access Area A, $23.23 in Access Area B, and $26.85 in Access Area C. See Id. at 17. Therefore, even if the UNE loop rates were reduced to zero in Dr. Ankum's tests, imputed costs would continue to exceed revenue in Access Area A and Access Area B. In Access Area C, UNE loop rates would need to be kept at or below $2.52 ($26.85 - $24.33) in Dr. Ankum's test for retail business network access lines to pass imputation.

costs and revenues. Joint CLEC Ex. 3.0 at 7, 10. Dr. Ankum defends his proposed inclusion of retail related expenses on the grounds that these are unavoidable in any CLEC effort to attract and obtain customers. Id. at 13-15. This defense fails for at least two reasons. First, such retail related costs are common costs, which are not identified in Section 13-505.1 or Commission Code Part 792 as germane to, or properly included in, imputation tests. Second, this inclusion equates to an improper guarantee, via imputation, of a contribution margin for CLECs (those using SBC UNE loops to provide retail business access line services).

Dr. Ankum also assumes that SBC's proposed UNE nonrecurring rates (which are higher than the analogous NRCs for SBC's retail business access lines) will be adopted by the Commission. *See* Joint CLEC Ex. 3.0 at 10-13. The Commission clearly should not accept this assumption, unless, of course, it actually does adopt SBC's proposed NRCs. Under Dr. Ankum's proposed tests, SBC's retail business access lines rates would fail for all of the UNE loop rates proposed by all parties in this proceeding, including the Joint CLECs' own proposed loop rates. Id.

The impact on SBC's retail revenue of allowing Dr. Ankum's proposed nonrecurring charges and retail related expenses into the imputation test are staggering. Staff witness Koch calculated that the impact of accepting Dr. Ankum's test would be a required increase in retail revenue of $131 million annually if Staff's proposed UNE rates were adopted by the Commission, and a $271 million increase in retail revenue if SBC's proposed UNE rates were adopted by the Commission. See Staff Ex. 33.0 at 13-14, and Schedule 33.01 to Staff Ex. 33.0.

3. Staff's Recommended Tests

The Staff is the only party to this proceeding to present a properly formulated and executed set of imputation tests. Moreover, the Staff is the only party to present a complete set of required imputation tests. Unlike the other parties, Staff presents the required tests for COPTS, STF-Pair-at-a-Time, and ISDN in addition to tests for retail business access lines.[67] Staff witness Robert F. Koch presents these tests, examining both SBC's proposed UNE rates and Staff's proposed UNE rates. Staff Exhibit 24.0, Schedule 24.01.[68]

Staff's recommended imputation tests also are the only tests presented in this proceeding that do not improperly include nonrecurring costs and revenues. Inclusion of nonrecurring costs and revenues is not only extremely suspect theoretically, but also has not been adequately supported by other parties. The unwarranted inclusion of nonrecurring costs and revenues also introduces unnecessary complexity to imputation tests for recurring services and element rates. Finally, in the case of the Joint CLECs' tests, this improper inclusion contributes greatly to the perverse imputation results previously noted.

As previously discussed, SBC's improper inclusion of vertical services and usage revenues undermines the validity and integrity of the imputation test. This leads to the absurd result that SBC's retail business access line rates would satisfy imputation requirements even if they were set to zero. Beyond this, SBC's proposed price

[67] With the tariff filing that initiated this proceeding, SBC had presented tests for each of these types of retail services, but later abandoned these tests in favor of Dr. Debra Aron's price squeeze analysis, which addresses only business network access lines.

[68] Due to changes in proposed UNE rates by Staff and SBC, Mr. Koch modified his analysis in his Rebuttal Testimony, Staff Exhibit 24.0.

squeeze analysis simply does not apply to any SBC business customer that does not purchase vertical services and usage in the amount assumed by Dr. Aron. Moreover, SBC has not shown that such customers represent a de minimus or trivial portion of the market for business customers. SBC does not argue – indeed cannot argue – that this portion of the market is somehow exempt from the statutory imputation requirements. The legislature did not somehow determine that CLECs need not or should not be protected from a price squeeze when seeking to serve lower margin, lower volume customers through use of UNEs.

Under Staff's properly formulated and executed imputation tests, it can be seen that none of the UNE loop rates proposed by Staff (and by the Joint CLECs) cause SBC's current retail access line to fail imputation requirements. In contrast, with the exception of certain COPTS[69] and STF Pair-at-a-Time services, SBC's proposed UNE loop rates cause business access line rates to fail imputation, and fail by a wide margin in some cases. In at least two cases (ISDN in Access areas B and C), SBC's proposed UNE-L rates are approximately twice its retail rates. Id. If SBC's proposed rates were to be adopted, competitors using UNE loops to serve customers will be subjected to the price squeeze that Section 13-505.1 is supposed to prevent. Assuming that SBC's proposed rates are adopted, the only way to prevent such a price squeeze would be to require SBC to raise its retail business access line rates.

Indeed, such are the magnitude of SBC's proposed UNE-L increases that, were the proposed increases adopted, SBC would be required to raise its retail business access rates by over *$100 million* under Staff's proposed imputation test. *See* Staff Ex.

[69] COPTS is an acronym for Coin Operated Pay Telephone Service.

24.03. This outcome, while unpalatable, would clearly be required by law. Further, if the Commission were to accept Dr. Ankum's imputation, that number would jump to the even more obscene level of $271 million. See Staff Ex. 33.0 at 13-14, and Schedule 33.01 to Staff Exhibit 33.0.

VIII. Other Legal Issues

A. Preemption, Tariffing and Related Issues

The Commission's Reopening Order specifically seeks comment on the impact of the Seventh Circuit's opinion in *Wisconsin Bell, Inc. v. Bie*, 340 F.3d 441, 2003 U.S. App. Lexis 16514 (7th Cir. 2003). As explained in Staff's *Initial Brief Regarding the Impact of Various Court Decisions*, filed January 13, 2004, *Bie* does not stand for the proposition that all tariffing requirements addressing interconnection, UNEs and resale are prohibited by the 1996 Act. Rather, *Bie* holds that state tariffing requirements are inconsistent with the 1996 Act to the extent that they require an ILEC to offer an alternative means of obtaining interconnection rights without an interconnection agreement. It is Staff's legal position that the tariff filing made by SBC in this proceeding, as well as the Commission's ability to review that filing and order such tariff revisions as it deems appropriate under applicable state and federal law, are permitted under *Bie* (notwithstanding that those tariffs purport to offer interconnection and UNEs without an interconnection agreement) because this docket was commenced upon a voluntary tariff filing by SBC. However, SBC has maintained in several recent appeals that Commission orders entered under similar circumstances were improper under *Bie*.

Thus, it is important that the Commission have a clear understanding of the basis upon which SBC is proceeding in this docket.

In the context of setting the schedule for this docket, counsel for SBC represented that SBC was proceeding on the basis of its tariffs, cost studies and testimony as filed. Tr. at 211. In the context of *Bie*, SBC should similarly indicate whether it is voluntarily asking this Commission to review its revised tariffs. If SBC contends that its filing was not voluntary or otherwise contests the Commission's authority to consider and rule upon SBC's revised tariffs, then there may be serious questions about the Commission's authority to proceed in this docket. On the other hand, if SBC agrees that its filing was voluntary and does not otherwise contest the Commission's authority to consider and rule upon SBC's revised tariffs, then the *Bie* opinion would not appear to present an obstacle to proceeding with this docket.

Staff reasserts and realleges all of the arguments set forth in its *Initial Brief Regarding the Impact of Various Court Decisions,* and its replies to other parties Briefs in that cycle, as though fully set forth herein.

B. Procedural and Evidentiary Issues

Staff does not assert procedural or evidentiary arguments other than those asserted above, but reserves the right to respond to any arguments raised in the parties' initial briefs.

IX. Conclusion

WHEREFORE, for all the reasons set forth herein, the Staff of the Illinois Commerce Commission respectfully requests that its recommendations be adopted in this proceeding.

Respectfully submitted,

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